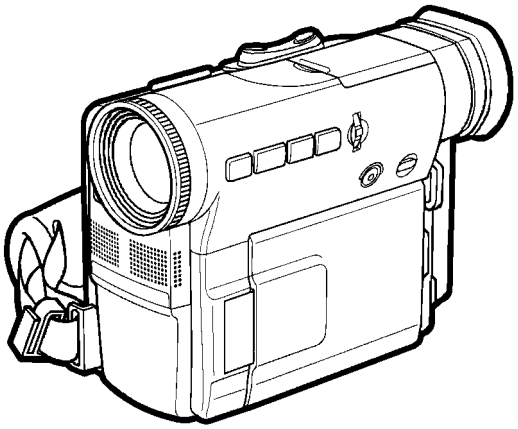
SHARP SERVICE MANUAL

S60D2VL-PD3AS

LIQUID CRYSTAL DIGITAL CAMCORDER PAL



MODELS VL-PD3AS VL-PD3AH VL-PD3AE

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

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SERVICE MANUAL LIQUID CRYSTAL DIGITAL CAMCORDER PAL MODELS VL-PD3AS/AH/AE

1. SPECIFICATIONS

Signal System:	PAL standard
Recording System:	2 rotary heads, helical scanning system
Cassette:	Digital VCR Mini DV video cassette
Recording/Playback Time:	90 minutes (DVM60, LP mode)
Tape Speed:	SP mode: 18.831 mm/second LP mode: 12.568 mm/second
Pickup Device:	$^1/_3$" (8.5 mm, effective size: 6.0 mm) CCD image sensor (with approx. 770,000 pixels including optical black)
Lens:	10 × power zoom lens (F1.4-3.0, f=4.7-47 mm), full-range auto focus, manual focusing possible
Lens Filter Diameter:	30 mm
Monitor:	2.5" (6.3 cm) full-color LCD screen
Minimum Illumination:	4 lux* (F1.4, with gain-up and digital zoom off)
Video Output Level:	1.0 Vp-p 75-ohm unbalanced
Audio Output Level:	– 8 dBs, impedance less than 2.2 kohms
Speaker Output:	300 mW
Power Requirement:	DC 7.4V
Power Consumption:	3.9 W (during camera recording using the viewfinder in full auto mode with zoom motor off) 4.7W (during camera recording using the LCD screen in full auto mode with zoom motor off and backlight in normal mode)
Operating Temperature:	0°C to +40°C
Operating Humidity:	30% to 80%
Storage Temperature:	– 20°C to +60°C
Dimensions (approx.):	70 mm (W) × 98 mm (H) × 128 mm (D)without protruding parts
Weight (approx.):	520 g (without battery pack, lithium battery and video cassette)

AC Adapter/Battery Charger (UADP-0321TAZZ)

Power Requirement:	AC 110-240 V, 50/60 Hz
DC Output:	7.3 V
Power Consumption:	23 W
Dimensions (approx.):	69 mm (W) × 43 mm (H) × 113 mm (D)
Weight (approx.):	160 g

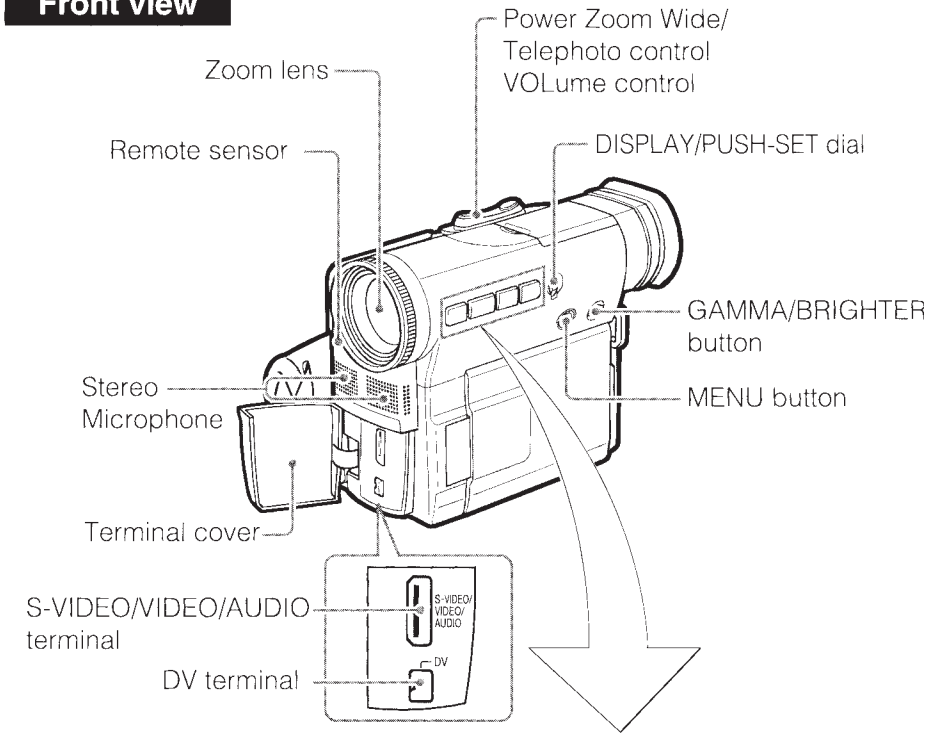
Battery Pack BT-L221

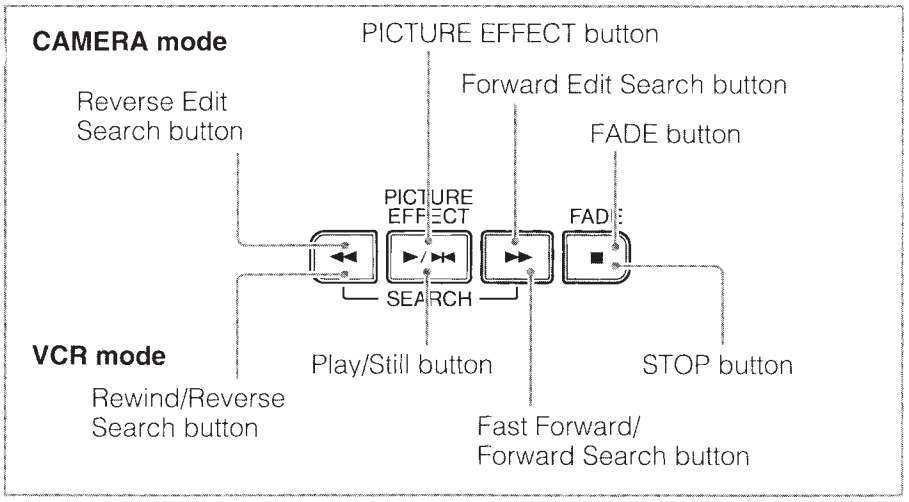
DC Output:	7.4 V
Dimensions (approx.):	40 mm (W) × 25 mm (H) × 53 mm (D)
Weight (approx.):	79 g

Specifications are subject to change without notice.

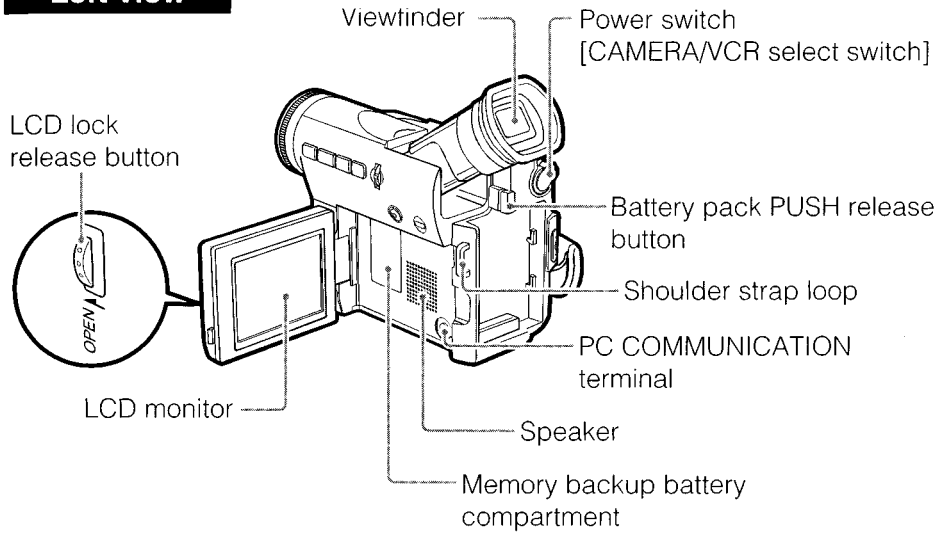
*Minimum illumination: Since there is no widely accepted testing procedure for determining minimum illumination capability, lux ratings are comparable only between models from the same manufacturer.

Front view

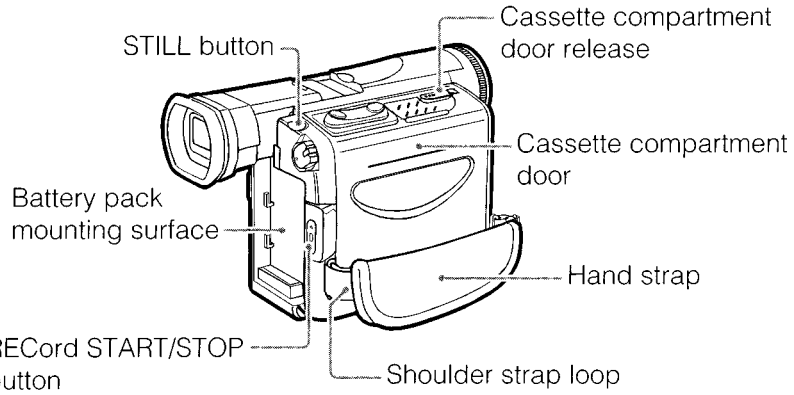




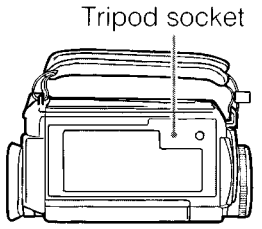
Left view



Right view



Bottom view

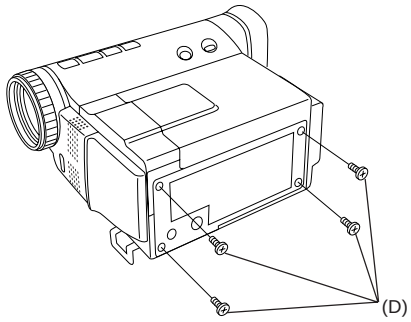


3. DISASSEMBLY OF THE SET

Note:

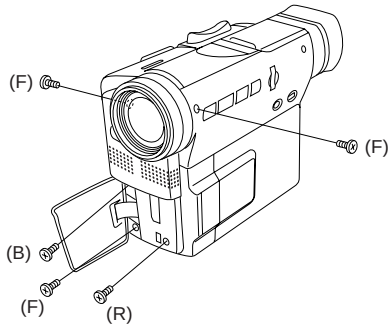
Before removing the cabinet, turn off the power supply, and ascertain that the battery have been removed.

1.



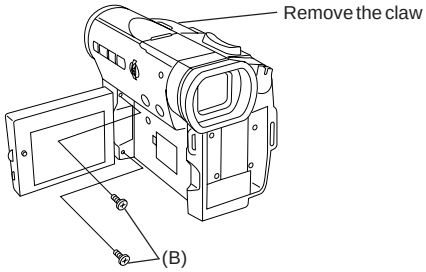
· Remove the screws ((D)XiPSF17P03000)(4pcs.) of the bottom cover and them.

2.



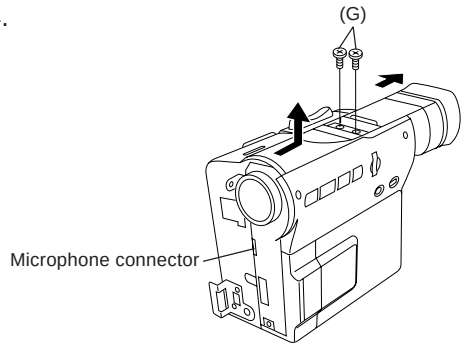
· Remove the screws ((F)XiPSN17P04000)(3pcs.), ((B)LX-HZ0050TAFN)(1pc.) of the front cover and the DV terminal's screw ((R)XiPSN16P05000)(1pc.).

3.



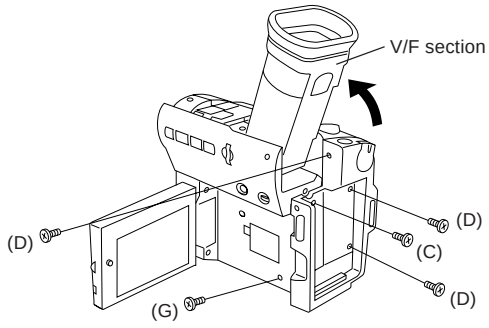
· Open the LCD panel, remove the screws ((B)LX-HZ0050TAFN) (2pcs.), the claws what is connected the cabinet A and remove the front cover.
Be careful so that not damage the lead wires of microphone when it removes the front cover.

4.



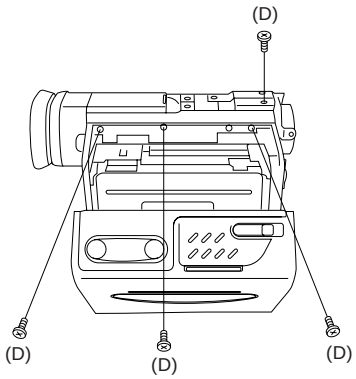
· Slide the section of V/F, and remove the plate of topside, the screws ((G)XiPSN17P03000)(2pcs.), and remove the top cover what is slided toward V/F slide.

5.



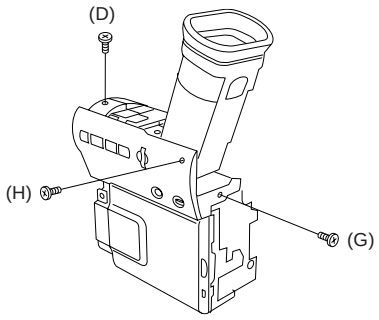
· Up the section of V/F, and remove the screw ((D)XiPSF17P03000) (1pc.).
· Remove the screws ((D)XiPSF17P03000)(2pcs.) and ((C) XiPSF1704000)(1pc.).
· Remove the screw ((G)XiPSN17P03000)(1pc.) and battery cover.

6.



· Remove the screw ((D)XiPSF17P03000)(1pc.) of topside and open the cassette compartment door, remove the screws ((D)XiPSF17P03000) (3pcs.) of both sides and center screws.
Remove the Remote control receiver unit connector, the Zoom FPC, the EJECT switch connector, the H/A connector, and the cabinet A.

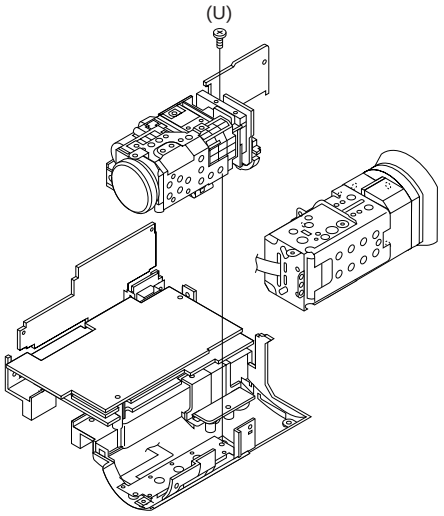
7.



· Remove the screw ((D)XiPSF17P03000)(1pc.) topside of cabinet B and the screws ((H)XiPSN17P02000)(1pc.) of side surface and ((G) XiPSN17P03000)(1pc.) of rear surface.

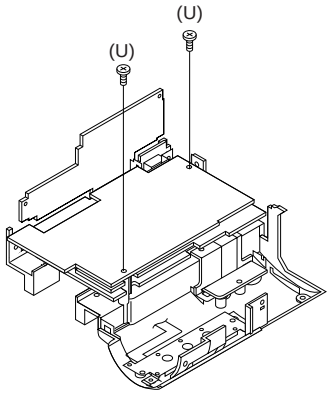
(Note.) In case of disassemble or assemble the section of V/F, do the work with great care that there are never taint or intermix of dust.

8.



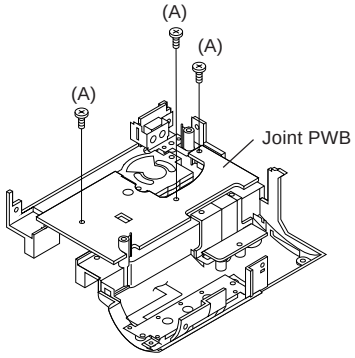
· Remove the screw ((U)LX-HZ0013TAFF)(1pc.) fixed the jogholder and the lens unit.
Remove the connector of main P.W.B. and remove to lift V/F unit.

9.



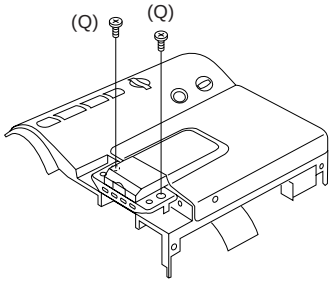
· Remove the screws ((U)LX-HZ0013TAFF)(2pcs.) and VCR PWB.

10.



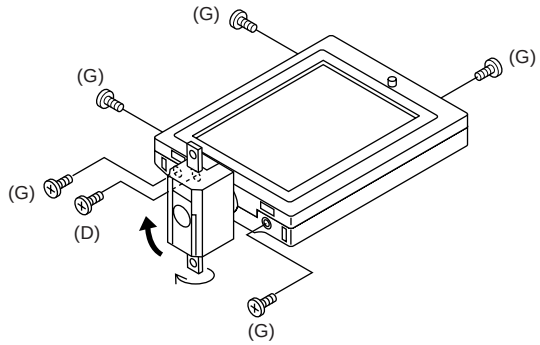
· Remove the screws ((A)LX-HZ0050TAFF)(3pcs.) and joint PWB.

11.



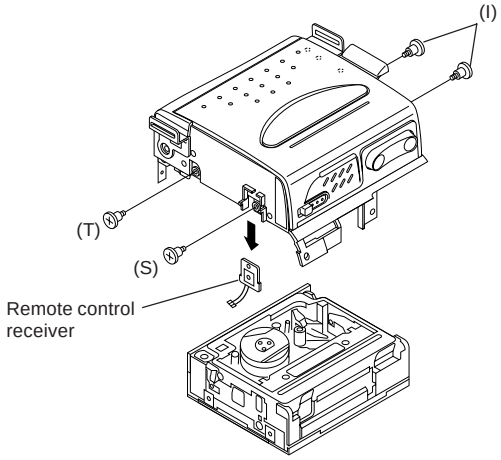
· Remove the LCD tilt fixing screws ((Q)LX-HZ0017TAFF)(2pcs.) and LCD cabinet unit.

12.



· Turn to a right angle the shaft of the LCD tilt unit section, turn the LCD tilt unit and it is perpendicular to the LCD cabinet.
· Remove the fixing screws ((G)XiPSN17P03000)(5pcs.), ((D) XiPSF17P03000)(1pc.) and LCD cabinet.

13.



· Remove the floating screws ((I)LX-BZ0032TAFD)(2pcs.), ((S) LX-BZ0225TAFF)(1pc.) and ((T)LX-BZ0231TAFE)(1pc.) and mechanism section .

<Screws>

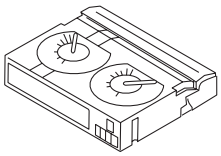
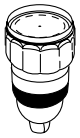
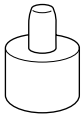
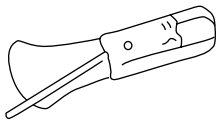
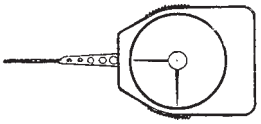
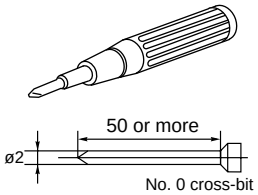
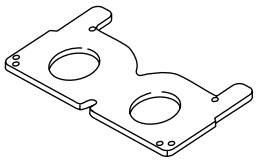
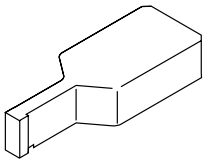
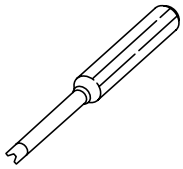
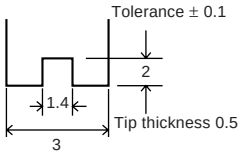
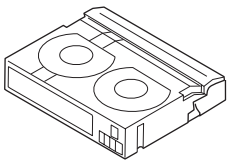
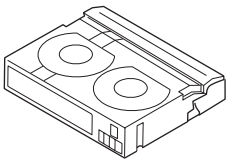
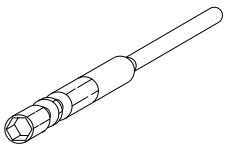
A	LX-HZ0050TAFF	M1.7×4 Black
B	LX-HZ0050TAFN	M1.7×4 Silver
C	XiPSF17P04000	M1.7×4 Black
D	XiPSF17P03000	M1.7×3 Black
F	XiPSN17P04000	M1.7×4 Silver
G	XiPSN17P03000	M1.7×3 Silver
H	XiPSN17P02000	M1.7×2 Silver
I	LX-BZ0232TAFD	Floating screw B
Q	LX-HZ0017TAFF	M2×8 Black
R	XiPSN16P05000	M1.6×5 Silver
S	LX-BZ0225TAFF	Floating screw Black
T	LX-BZ0231TAFE	Floating screw A Silver
U	LX-HZ0013TAFF	M1.7×6 Black

4. MECHANISM ADJUSTMENT JIGS AND PARTS

4-1. Mechanism check adjustment jigs

Configuration
1. Name
2. Part No.
3. Code
* Model, Uses Remarks

<Note: The entries of list>

 1. PB-use cassette Torque meter 2. 9DASD-1015 3. DB * SD-1015	 1. Torque gauge 2. JiGTG0045 3. CN * For use in VS-REW winding torque measurement.	 1. Torque gauge head 2. 9EQTGH-DH5000 3. BW * For use with the above torque gauge.	 1. Tension gauge 4N 2. JiGSG0400 3. BK * For measurement of pinch roller pressure.	 1. Dial tension gauge 2. 9DAPTG-10-10W 3. CA * PTG-10
 1. Torque screwdriver 150mN·m 2. JiGTD1500RTDH 3. CB	 1. Master plane 2. 9EQMP-VLPD1 3. CL * For checking reel base height.	 1. Height adjustment jig 2. 9DAHG-PD1 3. BZ * For height adjusting.	 1. Height adjustment screwdriver 2. 9EQDRiVER-DH5 3. BC * For guide roller adjustment.	* For Tu guide adjustment. * For T roller adjustment. * Bit shape (see figure below). 
 1. Alignment tape – (I) 2. VR3-GAZXS 3. CF * For tape running adjustment.	 1. Alignment tape – (II) 2. VR3-JPZQS 3. CG * For SW point adjustment. * 90ADVC-TAPEPAL can use, too. (Code CU)	 1. For hexagon nut opposite side 3mm bit. 2. 95CM22001 3. BL * For S guide hexagon nut installation.	<Miscellaneous> (1) Slide caliper (2) Precision screwdrivers (Phillips head and slotted) (3) Radio needle-nose pliers (4) Tweezers	

4-2. Parts for regular periodic inspection and maintenance

Configuration
1. Name
2. Part No.
3. Code
* Model, Uses Remarks

<Note: The entries of list>

1. Oil Cosmo Hydro HV22 2. HV22 : 9EQ-Oil-HV22 3. HV22 : AE * Cosmo Petroleum K.K.	1. Cleaning paper 2. JiGDUSPER 3. AP * DUSPER ∑ (SIGMA) (ozu Co., LTD.)	1. Grease: Moly Coat YM-103 2. 99FGREASE-YM103 * Dow coaning	1. Cleaning liquid: industrial-use ethyl alcohol * Commercially avaitable item
		1. Screw lock (1401B) * Three Bond	1. Extremely thin cotton swab * Commercially available item

<How to make jigs for mechanism checking and adjustment>

(1) Reel hub for back tension measurement (Fig. 1)
   1) Obtain a commercially available cassette tape reel hub. (Disassemble the cassette tape and remove the tape from the reel hub.)
   2) Paste one end of a string (about 20cm long) to the reel hub with (for example) cellophane tape.
   3) Paste the weight of about 0.21N on the upper side reel hub.

(2) String for use in pinch roller snap-fit force measurement (Fig. 2)
   1) Obtain an approximately 20cm length of commercially available string.
   2) Tie the 2 ends together to form a loop.

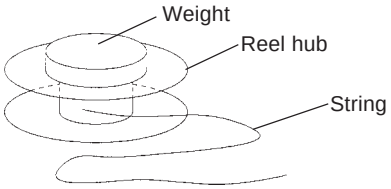


Fig. 1

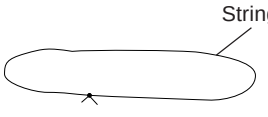


Fig. 2

5. INSPECTION AND MAINTENANCE ITEMS AND INTERVALS

In order to keep the mechanical section always in good condition, perform the following inspection and maintenance at regular intervals. In addition, after repair, perform the following maintenance items regardless of how long the user has been using the unit.

5-1. List of inspection and maintenance items

○ • • • Replace. □ • • • Clean. △ • • • Lubricate. ★ • • • Check.

	Inspection and maintenance location	Time of use (h) 500	1,000	1,500	2,000	3,000	Symptoms that indicate need for maintenance	Remarks
Tape running system	Tape running section (see section 7-3)	□	□	□	□	□	• Block-type noise • Head hole clogging • Tape damage	**Note:** Replace the drum ass'y if the video head is cleaned but the envelope still does not appear. (When the envelope is normal, refer to "10. USEFUL TIPS".)
	Drum section, Video head (see section 7-3)	□	□	□	□	□		
		<Rollers> • Replace if there is anything abnormal in the rotation, or if there is run-out (that becomes large). <Other than the above> • Clean the section that contacts the tape (especially the lower drum helical section). Use the specified cleaning liquid.						
Drive system	Timing belt	—	★ ○	—	★ ○	★ ○	• The tape fails to run. • The tape becomes slack. • Block-type noise • Abnormal noise	• Replace if there is anything abnormal.
	Pinch roller	□	□	□	□ ○	□		
	Capstan motor	—	○	—	○	○		
	Swing arm S reel base, Tu reel base	—	★ ○	—	★ ○	★ ○		
	Center pulley shaft Intermediate pulley shaft Swing arm boss Intermediate gear A shaft, Intermediate gear B shaft	—	△	—	△	△	• Abnormal noise	• Lubricate with oil. [Oil] Cosmo Hydro HV22 **Note:** Apply oil to the shaft, then wipe lightly with a cloth.
	Loading motor Mode switch	—	★ ○	—	★ ○	★ ○	• Cannot eject. • Fails to enter a mode.	• Replace if anything is abnormal (including the noise).
Performance checks	Abnormal noise	★	★	★	★	★	• The tape fails to run. • The tape becomes slack. • Tape damage • The play-back image is abnormal.	• Replace any part that fails to perform within the standard.
	PB · VS/REW winding torque	—	★	—	★	★		
	PB · VS/R · loading back tension Tu reel base ratchet torque S reel base no-load torque	—	★	—	★	★		

[Oil] Cosmo Hydro HV22 [Screw lock] Three Bond 1401B
[Grease] Moly Coat YM-103 [Cleaning liquid] Industrial-use ethyl alcohol

5-2. Precautions

(1) When replacing any part, always replace the cut washer that was removed with a new one.
(2) This mechanism does not have control adjustment. If the control cannot be set as required, clean and or replace parts.
(3) On the oil
  a) Always use the specified oil. (Using another kind of oil can cause various kinds of trouble.)
  b) Always use clean oil, without any mixed-in dirt, to lubricate bearings. (Using oil with dirt mixed in can cause the bearings to wear or to stick.)
  c) One drop of oil is the amount shown in the Fig. 1, on the point of a pin.
(4) Perform circuit repair, tape running adjustment, etc. with the cassette controller assembly attached to the mechanism.
(5) When operating the mechanism separately, apply voltage to the loading motor. However, the terminal voltage must be DC3V or less. (When the mechanism is connected to the main PWB, do not apply external voltage to the loading motor. It may cause a trouble.)
  (Forcing the gears to turn by hand entails danger of breakage.)
  If the mechanism is separated from the unit, the capstan motor may rub and be damaged if spacing under the mechanism is inadequate.
(6) To install the cassette controller, push section A in the Fig. 2. Do not push anything else.
(7) Do not deform any of the mechanical parts.

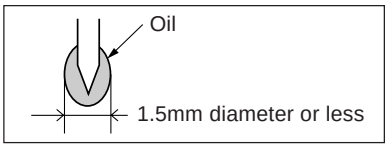


Fig. 1

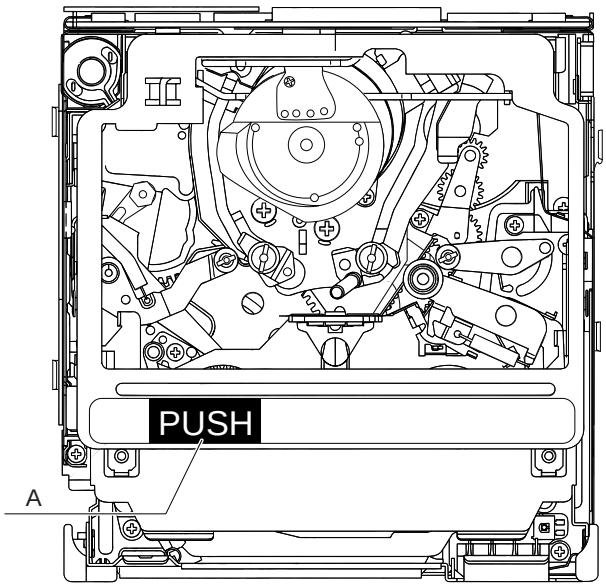


Fig. 2

6. MECHANICAL ADJUSTMENTS AND CHECKS

The items discussed here relate to general on-site servicing (field servicing). Adjustments and replacements that require sophisticated facilities, jigs and technology are omitted.
In addition, in order to maintain the characteristics that the unit has when it is new, not only are inspection and maintenance necessary, but it is absolutely necessary that, for example, the tape not be damaged, and always use jigs for adjustments that require them.

<Precautions>
(1) Always set the power supply and state of the unit as follows Notes for mechanism adjustments and checks.
- AC adapter used, with cassette controller assembly
- AC adapter used, without cassette controller assembly (Independent Mechanism)
- DC3V, without cassette controller assembly (Independent Mechanism)

(2) When the mechanism is connected to the main PWB, do not apply external voltage to the loading motor. It may cause a trouble.
(3) Always run the tape with the cassette controller assembly attached.

6-1. Checking the playback (recording) winding torque

AC adapter used, with cassette controller assembly

(1) Set the torque cassette with the cassette controller assembly attached, then, in SP recording mode (playback mode if a signal has already been recorded in SP mode on the tape), confirm that the torque on the winding side is within the standard.
<Winding torque standard in record (playback) mode>
(If there is torque ripple, read the center value.)
0.70 +0.4/-0.3mN·m, ripple 0.4mN·m or less

6-2. Checking the rewinding playback (VS-REW) winding torque

AC adapter used, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, press the DOWN switch, using the adhesive tape and referring to 8-3, operate in the TEST mode (T01) to rewind, and set the rewinding playback (VS-REW) mode.
(2) Set the torque gauge on the S reel base, press the front end of tension post with your finger in the arrow A direction so as to ascertain that the winding torque is as specified. (Check without rotating the torque gauge.)
<Rewinding playback (VS-REW) winding torque standard>
(If torque ripple exists, read its center value.)
1.6 ± 0.6mN·m, ripple 0.5mN·m or less
(3) After checking the winding torque remove the torque gauge, and remove the adhesive tape used in item (1) above (refer to 8-3). The STANDBY mode is set automatically.

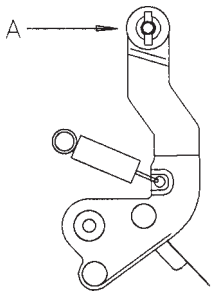


Fig. 1. Removal of tension band when measuring the rewinding playback (VS-REW) winding torque

6-3. Checking of reel base height

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly (refer to 8-2).
(2) Referring to 8-1, apply DC3V to the loading motor and put the system into playback mode.
(3) Taking adequate care so that the master plane does not contact drum, running parts (guide roller, etc.), or the MIC contacts. Fit the master plane holes to the 2 guides (A and B) in Fig. 2.
(4) Confirm that the heights of the S reel base reel receiving surface and the Tu reel base reel receiving surface below the master plane top surface are within the set values, using, for example, a slide calliper (Fig. 3).
When checking the S reel base height, press the front end of tension post in the arrow A direction with your finger to release the tension band, and then check the height in this state (Fig. 1).
(5) If the height is not within set values, replace the washer under the reel base, and adjust as specified.
Note: After the adjustment, make sure that the reel bases rotate smoothly.

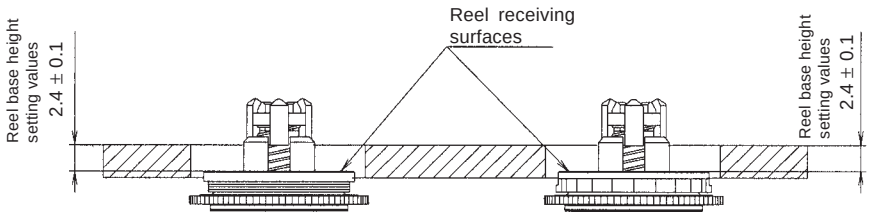


Fig. 3

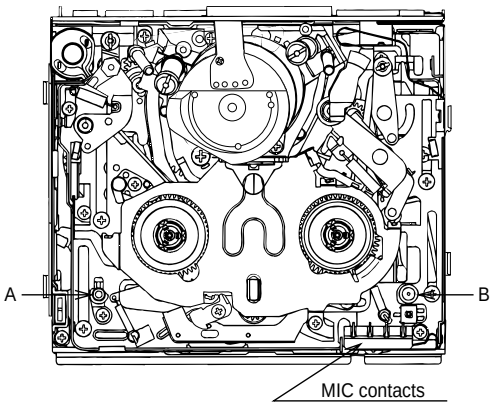


Fig. 2

6-4. Back tension torque check and adjustment in record (playback) mode

AC adapter used, with cassette controller assembly

(1) Checking

Set the torque cassette (SD-1015), and make sure in the SP record mode that the supply side torque is within the standard shown below (or in the playback mode for the tape on which the signal has been SP-recorded).

<Standard>

(If torque ripple exists, read its center value.)

0.7 ± 0.1mN·m

(2) Adjustment (Fig. 4)

If the value is out of standard range, adjust, using the screw 1 shown in Fig. 4.

1. Loosen the screw 2 slightly.
2. Adjust to turning the screw 1. When back tension is too high, turn the screw 1 counterclockwise (CCW).
   When back tension is too low, turn the screw 1 clockwise (CW).
3. After adjustment fix the angle with the screw 2. (At this time take care so as to prevent excessive tightening.) Apply Screw Lock to the screw 1.

<Caution>

Screw tightening torque: 0.04N·m

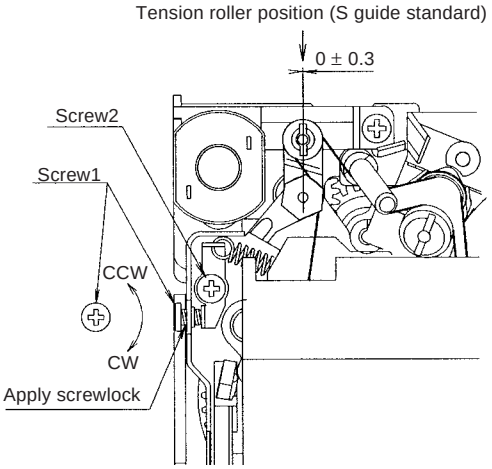


Fig. 4. Check (tape exists)

6-5. Checking and adjustment of tension roller position in record (playback) mode

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Checking

Before winding the 60-min tape make sure that the tension roller is in the same position as S guide as shown in Fig. 4.

If not, take out the tape and adjust in the following procedure.

(2) Adjustment (Fig. 5)

1. Set the playback mode without loading the tape.
2. Loosen the screw 3 slightly (to such an extent that the tension band holder 4 can be moved).
3. If the tension roller is inside from the specified position, shift the tension band holder 4 in the arrow Ⓐ direction. If the tension roller is outside, shift the tension band holder in the arrow Ⓑ direction, and fix with the screw 3. (Proper shift must be 0.2 to 0.6mm outside from the specified position.)
4. Check the position by the procedure described in item (1) Checking above.
5. If the position is not specified position, adjust again.

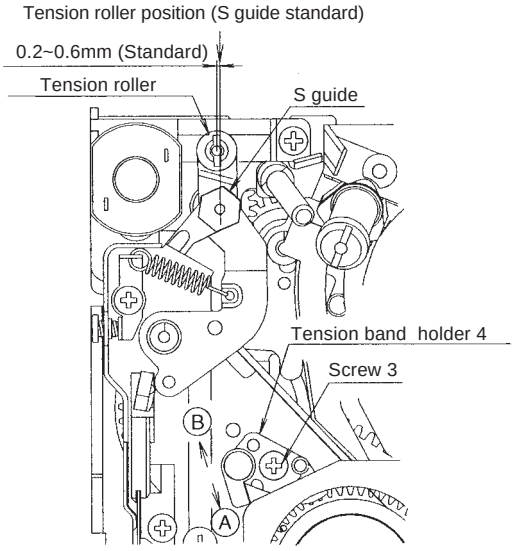


Fig. 5. Position adjustment (tape does not exist)

6-6. Checking of supply S reel base no-load torque

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into L. start mode (refer to 8-1).

(2) Move the swing arm toward the Tu reel base side.
Be careful not to cause damage to the gears and other parts in the process. (Fig. 6)

(3) Set a back tension measurement reel hub on the S reel base.

(4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

<FF back tension standard>

(If the tension fluctuates, read its center value.)

30mN or less

6-7. Checking of loading back tension

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into L. start mode.
(refer to 8-1)

(2) Move the swing arm toward the S reel base side. Be careful not to cause damage to the gears and other parts in the process. (Fig. 7)

(3) Set a back tension measurement reel hub on the Tu reel base.

(4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

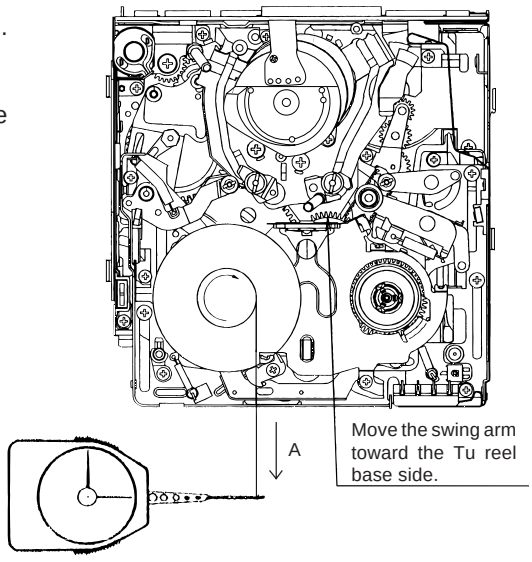


Fig. 6. S reel base no-load torque measurement method

<REW back tension standard>

(If the tension fluctuates, read its center value.)

15 ± 12mN

6-8. Checking of winding Tu reel base ratchet torque

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into standby mode. (refer to 8-1)

(2) Move the swing arm toward the S reel base side.
Be careful not to cause damage to the gears and other parts in the process. (Fig. 8)

(3) Set a back tension measurement reel hub on the Tu reel base.

(4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

<Winding Tu reel base ratchet torque standard >

(If the tension fluctuates, read its center value.)

100mN or less

6-9. Checking of rewinding playback (VS-REW) back tension

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into rewinding playback (VS-REW) mode. (refer to 8-1)

(2) Move the swing arm toward the S reel base side.
Be careful not to cause damage to the gears and other parts in the process.

(3) Set a torque gauge on the Tu reel base.

(4) Turning the torque gauge to counterclockwise (1 turn for 3 seconds), then confirm that the torque is within the standard.

<Rewinding playback (VS-REW) back tension standard value>

(If the tension fluctuates, read its center value.)

0.70 +0.6/-0.3mN·m

6-10. Checking of pinch pressing force

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Set the pinch roller pressing force measuring thread on the pinch lever (position A , Fig. 9).

(2) Set the mechanism to the playback mode, press the pinch roller against the capstan axis.

(3) Fit the tension gauge to the pinch roller pressing force measuring thread, pull in the arrow B direction shown in Fig. 11 to separate a little the pinch roller from the capstan axis.

(4) Gradually return the pinch roller, and when the pinch roller contacts parallel the capstan axis, read the value (see Fig. 10) to make sure that the value conforms to the standard shown below.

<Standard>

1.8 +0.3/-0.5N

<Caution>

After making this measurement, quickly release the system from playback mode and remove the pinch roller from the capstan shaft. (If the pinch roller is left fitted onto the capstan shaft for a long time, the pinch roller will be deformed.)

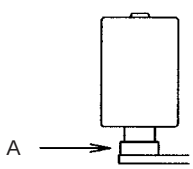


Fig. 9

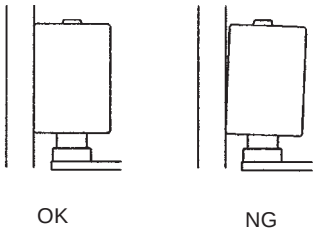


Fig. 10

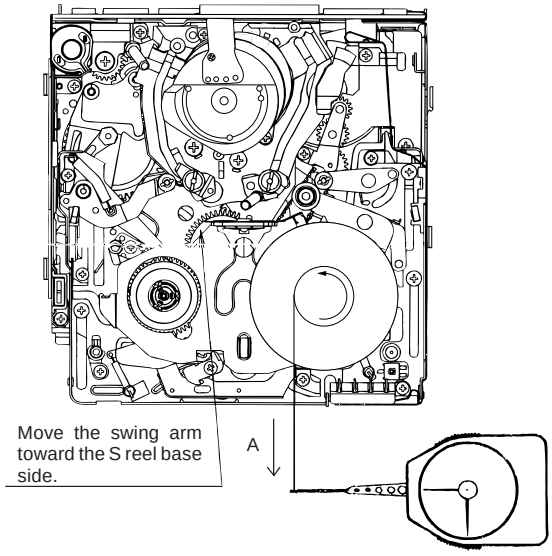


Fig. 7. Loading back tension measurement method

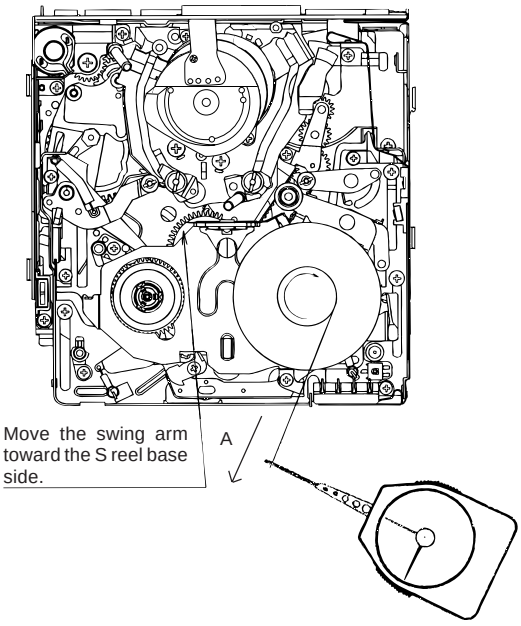


Fig. 8. Winding Tu reel base ratchet torque measurement method

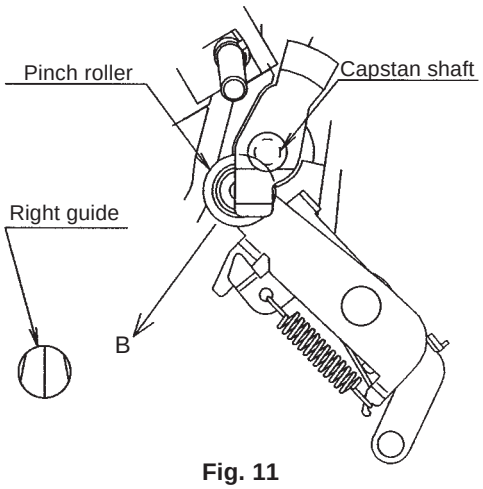
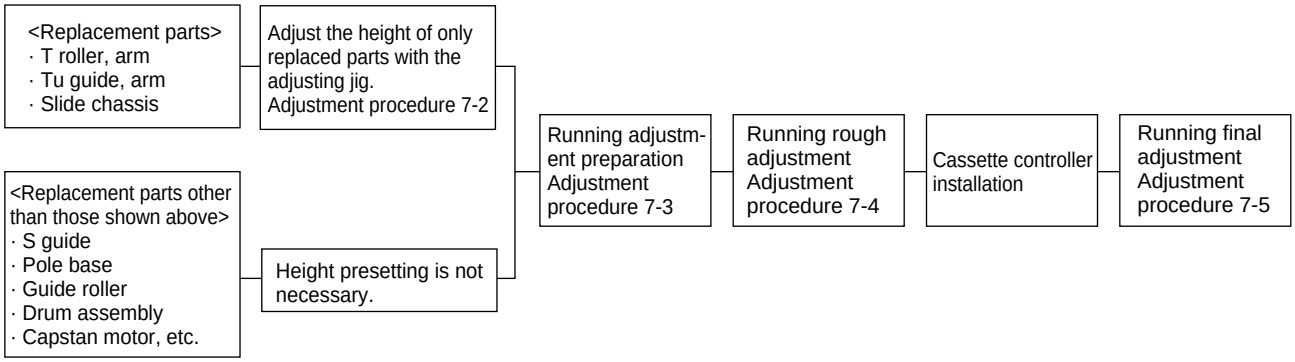


Fig. 11

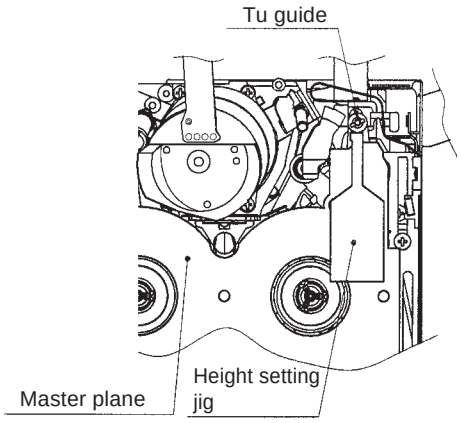
7. TAPE RUNNING ADJUSTMENT

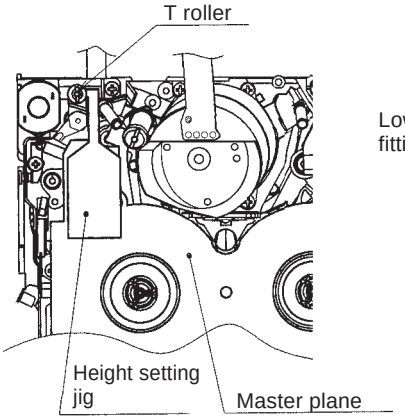
7-1. Adjustment locations

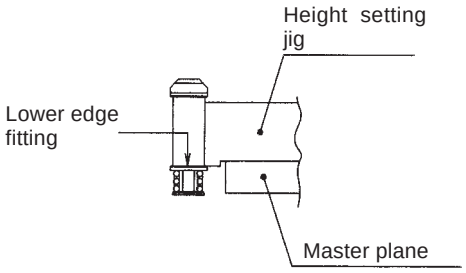


7-2. Running height adjustment

· After replacement of T roller or Tu guide adjust the height . (Adjust only the replaced parts.)
· After height adjustment do not turn the T roller. If crease is found on the tape of Tu guide, remove the crease by rotating. (As for details refer to the “running rough adjustment”.)
· After height adjustment of T roller or Tu guide, apply Screw lock to an end of shaft. (After replacement of S guide apply Screw lock to same point, too.)







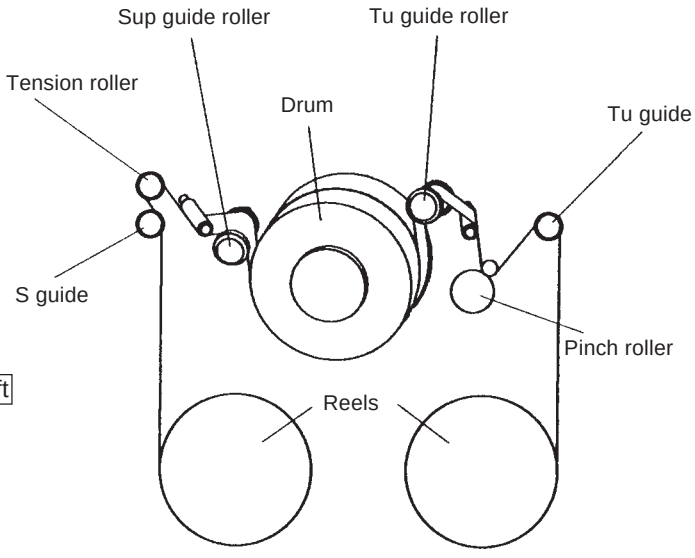
Fit height the par on low edge fitting.
After setting adjustment jigs, turn T roller and S guide counterclockwise to 225°.

7-3. Preparation for tape running adjustment

Meters, jig… Oscilloscope, Adjustment remote control, Height adjustment screw driver, Alignment tape (for tape running adjustment, for switch point adjustment), Master plane, Height adjustment jig.

<Method and description>

(1) Remove the cassette controller assembly.
(2) Clean the tape running surface (especially, adequately clean the drum surface and the lower drum helicam surface).
(3) Connect an oscilloscope to each TP on the relay circuit board.
(4) Turn the AC adapter power ON.
(5) Using the adjustment remote control unit, put the system TEST mode T-05.
(6) Replay the alignment tape for running adjustment, and make sure that the tape is running in the SP mode.
(7) Check the oscilloscope playback envelope, then, at +1/4 shift and -1/4 shift, check whether all of it is flat. If it is not, perform the following adjustment so that it becomes flat.
(Each time you push the PLAY key, the shift will change; [+1/4 shift] →[Normal]→[-1/4 shift]→[Normal], in order.)



7-4. Running rough adjustment

(Since this adjustment is performed without cassette controller, put a proper weight so that the cassette does not rise , and make an adjustment.)

1) Su, Tu guide roller height adjustment

<Method and description>

(1) Loosen the guide roller lock screw, then tighten loosely so that the roller turns easily.
(2) Replay an alignment tape, and adjust the Sup, Tu guide roller so that the envelope sides of entrance and exit are flat.
(3) Perform ± 1/4 shift, then, as in the above case, adjust until the envelope becomes flat.
* If running is difficult for the entrance changed, turn the T roller to counter clockwise 180°. (refer to Fig. 1)

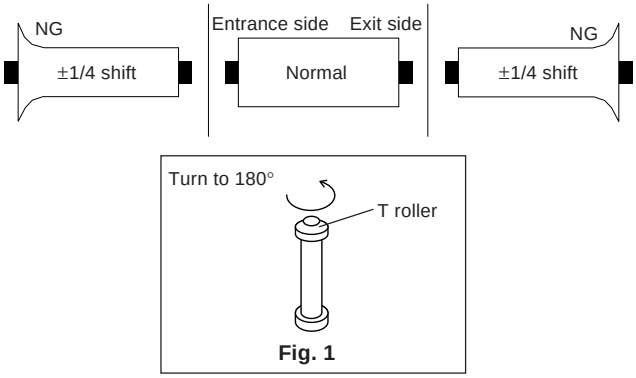
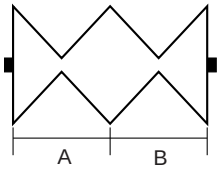


Fig. 1

2) Check of V/SR envelope wave form

<Method and description>

(1) Confirm that the envelope waveform peaks in V/SR mode are uniform.
(2) If they are not uniform, fine-adjust the guide roller and the Tu guide.

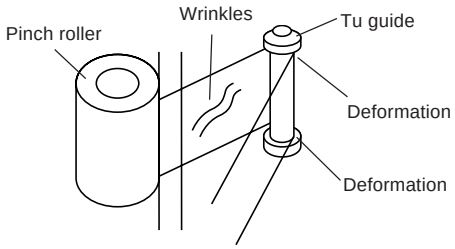


Adjust so that A ≒ B.

3) Check of tape wrinkles

<Method and description>

(1) Check that the tape is not distorted between the Tu guide and pinch in the PB mode and the V/SR mode.
⇨If crease is found, make an adjustment in the range of ±180°.
⇨After adjustment apply Screw Lock.



4) Check the rising time of the envelope wave form

<Method and description>

(1) Check the rising time of the envelope when switching from V/SR mode to PB mode. (Within 5 sec)
(2) Check the rising time of the envelope when switching from STOP mode to PB mode. (Within 5 sec)

7-5. Final running adjustment

(Perform adjustment without removing the cassette controller.)

1) Adjustment of Sup and Tu guide roller height

<Method and description>

(1) Perform ± 1/4 shift, then if the envelope wave's ratio of MAX. to MIN. are 60% or less, adjust again the height of guide roller. (Refer to Fig. 2)
(2) Finally adjust the lock screw of Sup and Tu guide roller.
(3) Once perform unloading and then loading to set the PB mode, and make sure that the envelope waveform does not change.

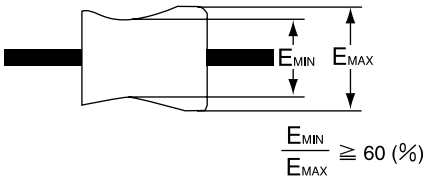


Fig. 2

2) Adjustment of playback SWP

<Method and description>

(1) Playback the alignment tape for switch point adjustment.
(2) Perform SWP automatic adjustment with adjustment remote control.

* When replacing the mechanism and drum, adjust the phase and equalizer using the adjustment remote control. (Refer to "9. ADJUSTMENT THE ELECTRICAL CIRCUIT".)

8. MECHANICAL SECTION ASSEMBLY AND PARTS REPLACEMENT (DISASSEMBLY AND REASSEMBLY)

Mechanical section disassembly and reassembly are explained in this section.
For removal of the cabinet, etc., refer to **3. DISASSEMBLY OF THE SET.**

<Precautions>

1. Always replace cut washers that have been removed, for example in parts replacement, with new ones.
2. When reassembling, be careful not to allow screws, washers or foreign matter to enter. They can cause mechanical misoperation.
3. Use the cleaning liquid, oil, grease and screw lock that are specified below. Use of any other kind can cause mechanical misoperation.

Oil: Cosmo Petroleum : Cosmo Hydro HV22	Screw lock: Three Bond :1401B
Grease: Dow Corning : Moly Coat YM-103	Cleaning liquid: Industrial-use ethyl alcohol

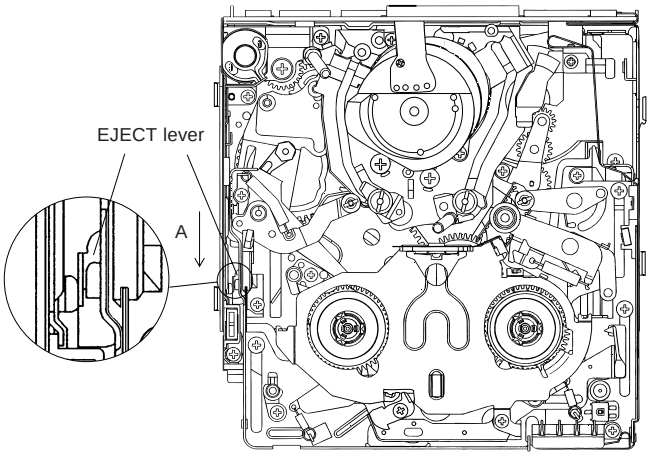
4. Turn the mechanical section over, do not place it on, for example, a desk. Deformation and scratching of mechanical parts can cause trouble.

8-1. On the mechanical modes

When operating the mechanism separately, apply DC3~4V to the loading motor.
(When the mechanism is connected to the main PWB, do not apply external voltage to the loading motor. It may cause operational problems.)

(1) EJECT mode

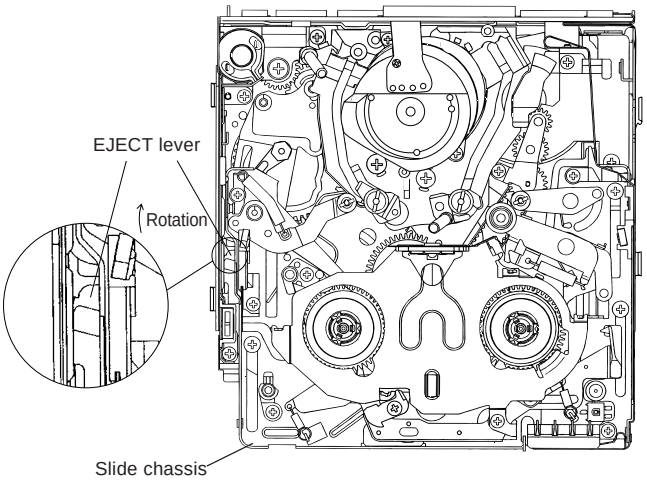
The mechanism position to take out the cassette where the EJECT lever is extremely shifted in the A direction. (It is impossible to lock the cassette controller assembly in this mode.)



EJECT mode diagram

(2) STANDBY mode

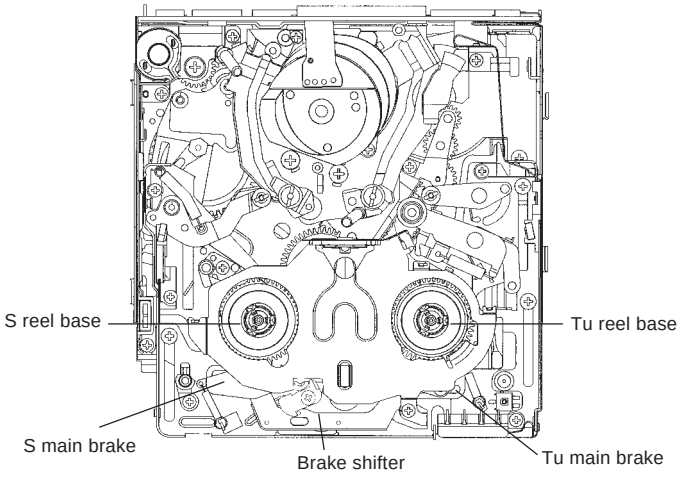
The mechanism position to set the cassette where the slide chassis is at the farthest position from the drum and the EJECT lever is in clockwise rotated position (position where the cassette controller assembly can be locked).



STANDBY mode diagram

(3) LOADING START mode

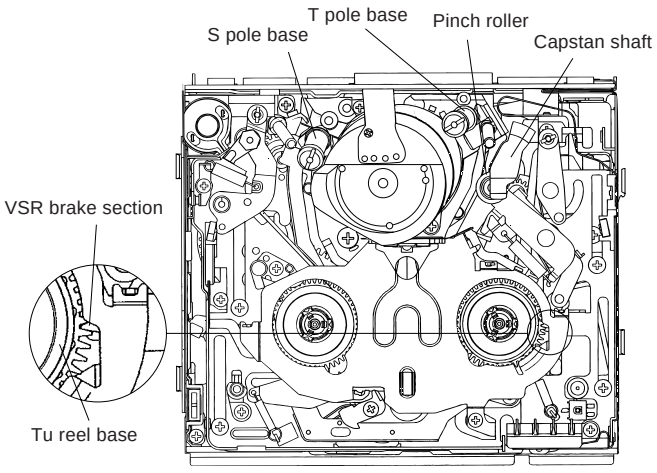
This is the mode where the tape is wound around the winding reel when a cassette with visible wind start leader tape is loaded. (The brake shifter moves to the left, the S main brake is separated from the S reel base and the Tu main brake is separated from the Tu reel base.)



LOADING START mode diagram

(4) REWINDING (VSR) mode

The mechanism position to rewind the tape (fast rewinding playback). The S and T pole base is pressed, the pinch roller is pressed to the capstan axis, the brake shifter VSR brake section engages with the Tu reel base gear.

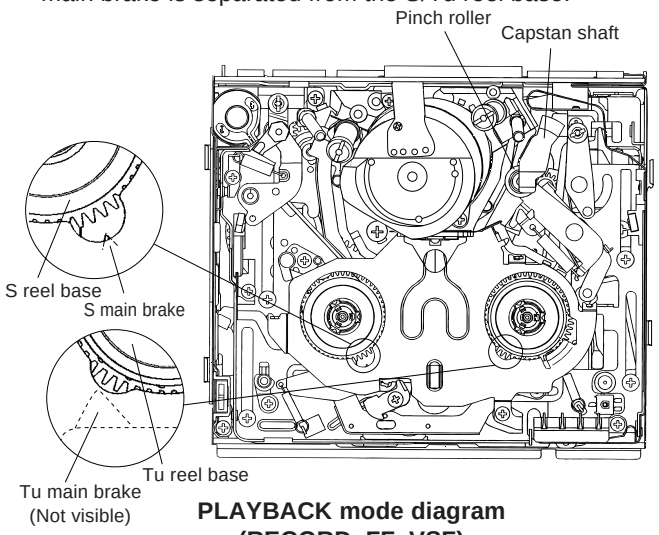


REWINDING (VSR) mode diagram

(5) PLAYBACK (RECORD, FF, VSF) mode

The mechanism position for playback, record, FF and fast feed playback.

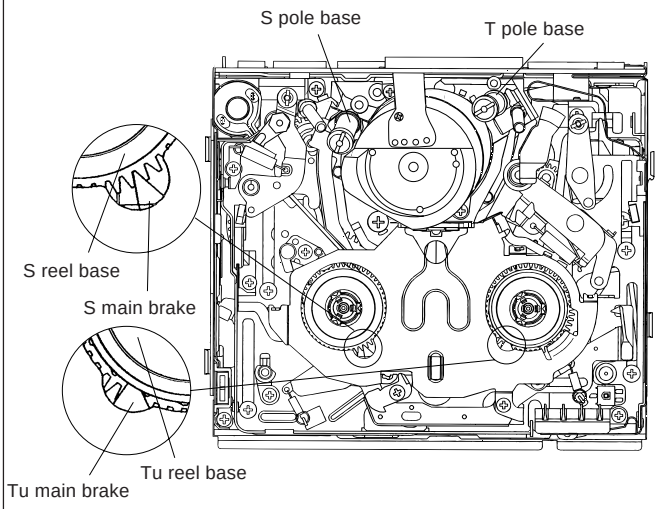
The pinch roller is pressed to the capstan axis, and the S/Tu main brake is separated from the S/Tu reel base.



PLAYBACK mode diagram (RECORD, FF, VSF)

(6) STOP mode

The system is in the STOP (Rec Lock in CAMERA mode) position; the S and the T pole bases are snap-fitted to the drum base, the S brake is in contact with the S reel base, and the Tu brake is in contact with the Tu reel base.



STOP mode diagram

8-2. Cassette controller assembly

<Removing>

(1) Remove the CAP FPC cover. (Remove the Head amplifier PWB unit and tighten screw together.)

(2) Apply DC3V to the loading motor to set the standby mode. Press the lock lever in the arrow direction to move up the cassette controller. (See Fig. 1, direction Ⓐ or Ⓑ)
(When the lever is pressed in the direction Ⓐ, gently raise the cassette controller to release.)

(3) Remove the screws Ⓒ and Ⓔ shown in Fig. 2 and Fig. 3, and remove the Down guide Ⓘ.

(4) Remove the screws Ⓓ, Ⓕ, Ⓖ, and Ⓗ shown in Fig. 2, 3 and 4, raise the side plate Ⓙ in the direction K to remove it.

Note) When removing the cassette controller, take care so that the drum motor FPC provided between the side plate Ⓙ and the top cover Ⓡ is not damaged and so that the drum is not damaged.

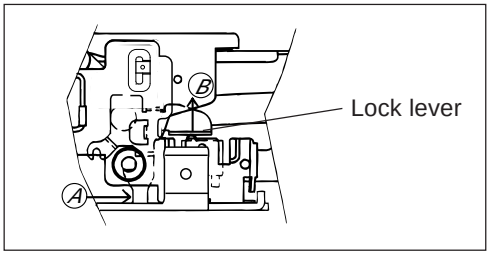


Fig. 1. Lock lever

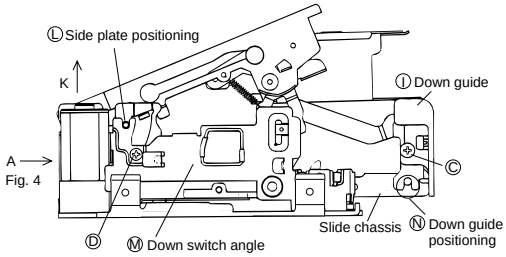


Fig. 2

<Installing>

(1) Apply DC3V to the loading motor to set the standby mode.

(2) Install the side plate Ⓙ.

1) Lower the cassette controller assembly in the direction contrary to K in Fig. 4, and fit the screws Ⓖ and Ⓗ as shown in Fig. 4.
Tightening torque 40 ± 4mN·m
Before fitting the screws Ⓖ and Ⓗ make sure that the side plate positioning section Ⓛ engages with the down switch angle in Fig. 2.

Note) When lowering the cassette controller assembly in the direction contrary to K, place the drum motor FPC between the side plate Ⓙ and the top cover Ⓡ. At this time be careful so that FPC is not damaged. Take care so that the drum is not damaged.

2) In Fig. 2 fit the screws Ⓓ.
Tightening torque 40 ± 4mN·m

3) In Fig. 3 fit the screw Ⓕ.
Tightening torque 40 ± 4mN·m

(3) Install the down guide Ⓘ.

1) In Fig. 2 and Fig. 3 engage the slide chassis down guide positioning sections Ⓝ and Ⓞ with the down guide, install with the screws Ⓒ and Ⓔ.
Tightening torque 40 ± 4mN·m

(4) Attach the CAP FPC cover.

1) Attach the Head amplifier PWB unit and tighten screw together.
Tightening torque 40 ± 4mN·m

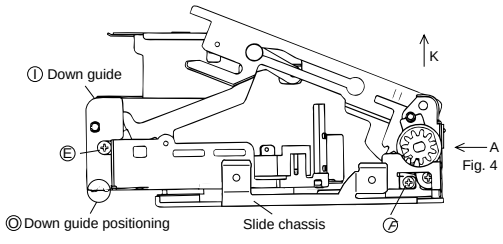


Fig. 3

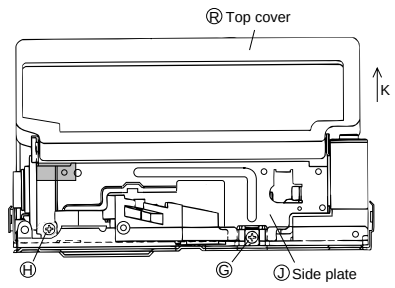


Fig. 4. (Fig. from direction A)

8-3. How to operate with the circuit board without the cassette controller assembly.

In this method, if the procedure is followed incorrectly there is danger of damaging the mechanism and the tape, so except in special cases, such as when measuring the VSR torque, do not perform this procedure. Normally operate this unit with the cassette controller assembly attached.
Be sure to follow each caution mentioned.

(1) Apply DC3V to the loading motor to set the EJECT mode.
(2) Remove the down switch angle.
1) In Fig. 5 remove the screws Ⓟ and Ⓠ.
Note) The loading motor solder joint (part T, Fig. 5) of DEW sensor FPC applied to the down switch angle is not removed. After the down switch angle is removed, take care so that the DEW sensor FPC is not broken.
(3) Surely secure the moving piece Ⓡ of down switch as shown in Fig. 6 with the aid of adhesive tape so that the switch is turned on.
(4) Install the down switch angle.
Note) To set the REC mode, press the pin of recognition switch Ⓢ (not required in other modes).
(5) Set the test mode (T-01) with the adjustment remote controller without loading the tape. Thereby the mechanism operation is enabled with the mode key.
(6) To eject, remove the tape (3).

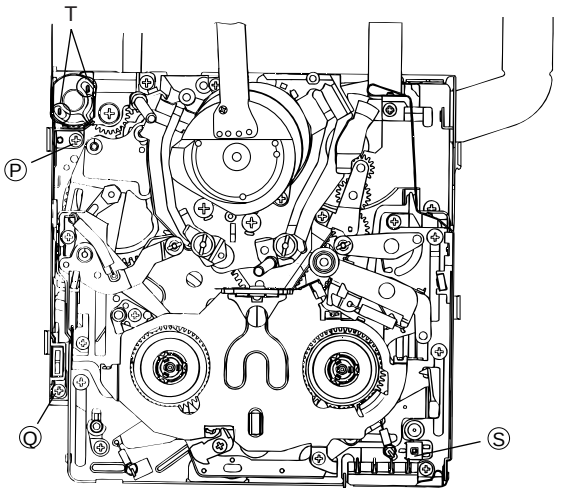


Fig. 5. STANDBY mode

8-4. Phase matching

For the parts listed below, match the phases as shown in Fig. 7.
(1) AHC cam (2) MODE switch (3) Main cam (4) Sub cam

Note) Before disassembling, check the marker positions carefully.
Note) When installing the engagement gear, make sure that the main cam and sub cam phase matching hole aligns with the chassis hole.
Note) After phase matching, turn the MODE switch by hand and confirm that it turns almost one complete turn. (After checking, return it to its original position.)

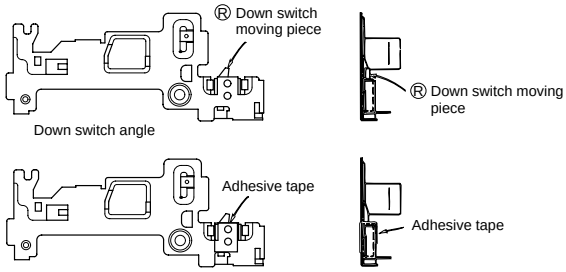


Fig. 6

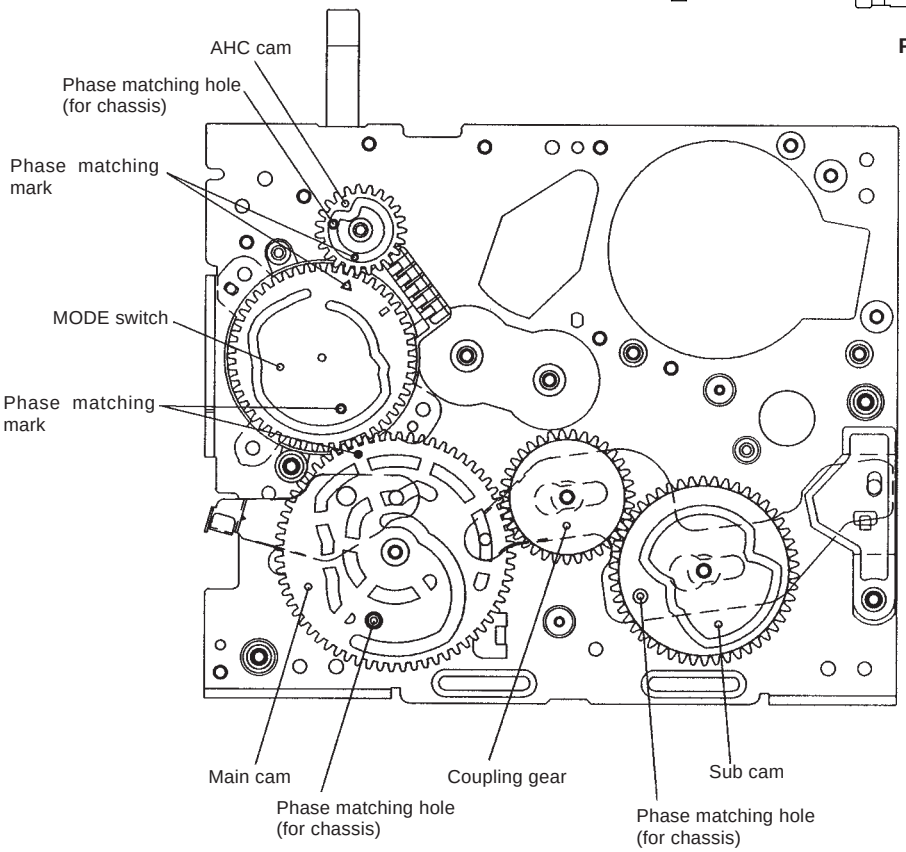


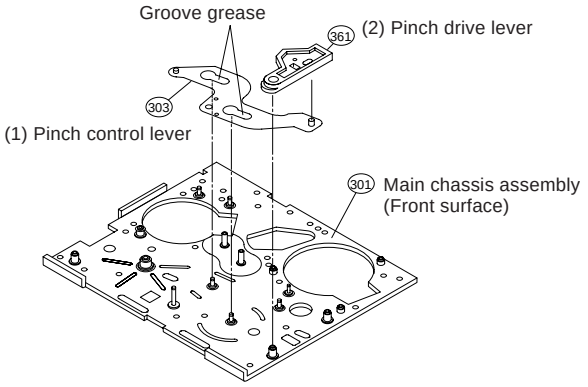
Fig. 7

8-5. Reassembly

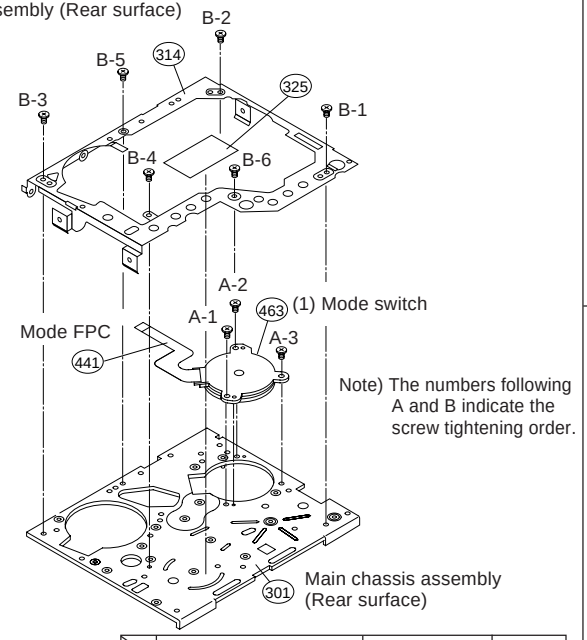
8-5-1. Reassembly in side of the main chassis.

Note) Numbers before part names are given as a guide to the order of assembly.
As for greasing/oiling/cleaning places refer to the attached drawings (Grease/Oil application Fig. 1, 2).

1.

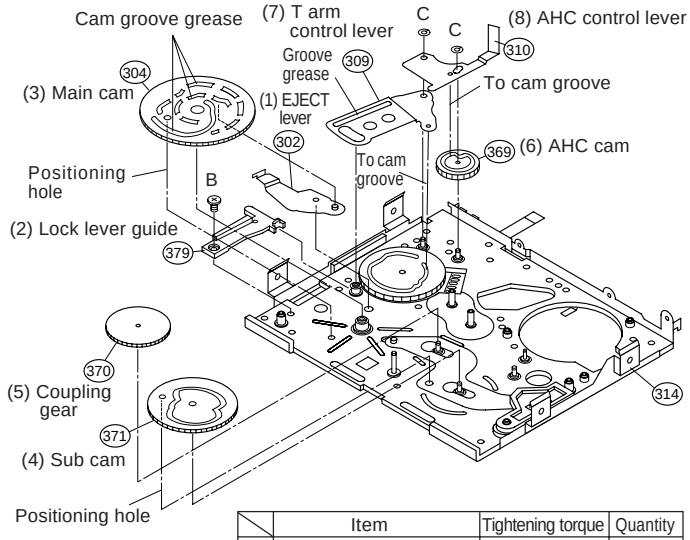


2.



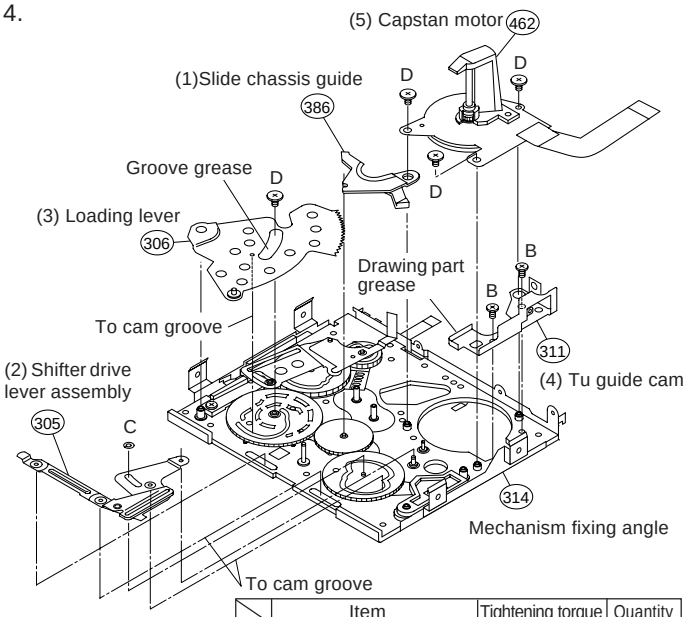
	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	70mN·m	3
B	S Tight · M1.4 x L2	70mN·m	6

3.



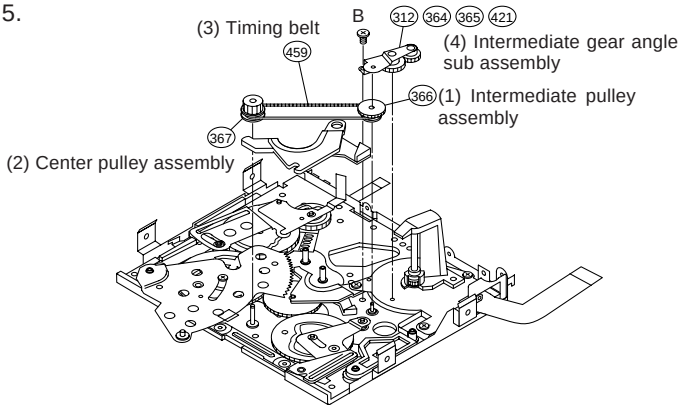
	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	70mN·m	1
C	CWø1.2-ø3.0-t0.25	———	2

4.



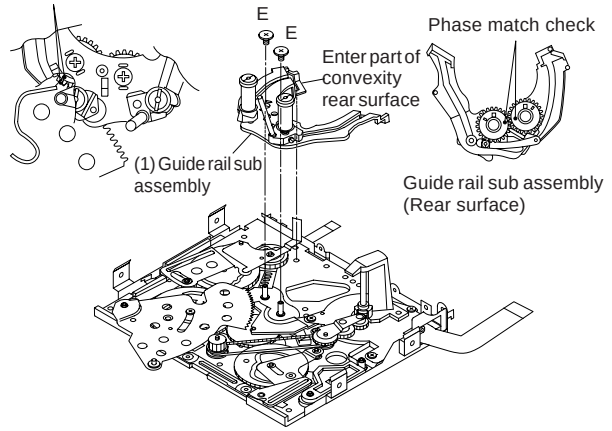
	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	70mN·m	2
C	CWø1.2-ø3.0-t0.25	———	1
D	Special screw · M1.4 x L1.6	40mN·m	4

5.



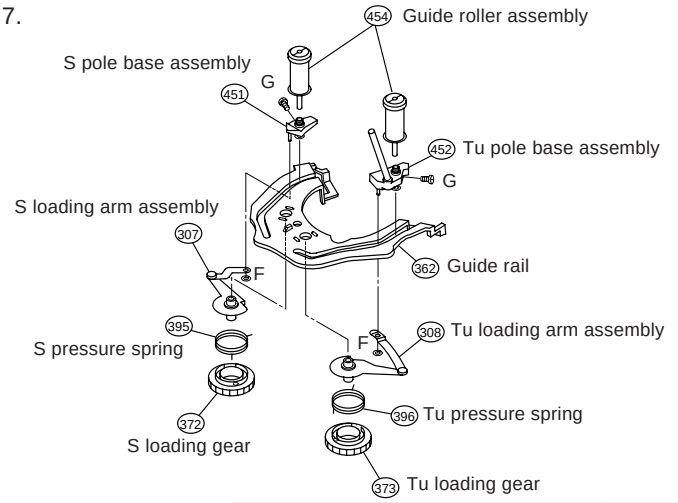
	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	70mN·m	1

6. Phase match check



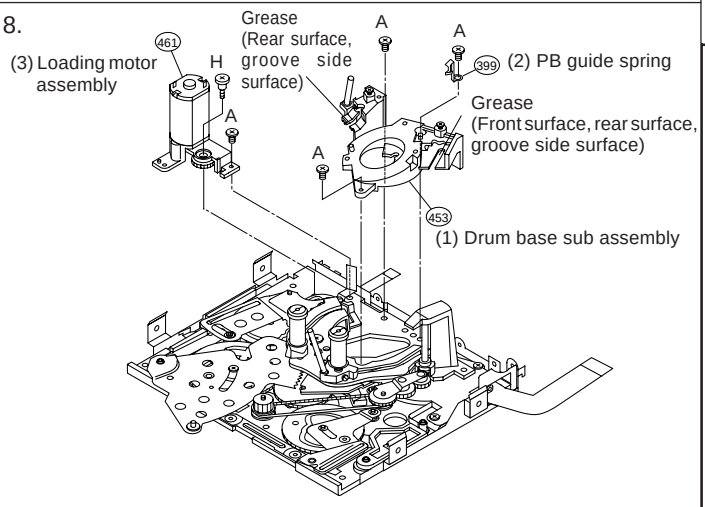
	Item	Tightening torque	Quantity
E	Special screw · M1.4 x L1.5	40mN·m	2

7.



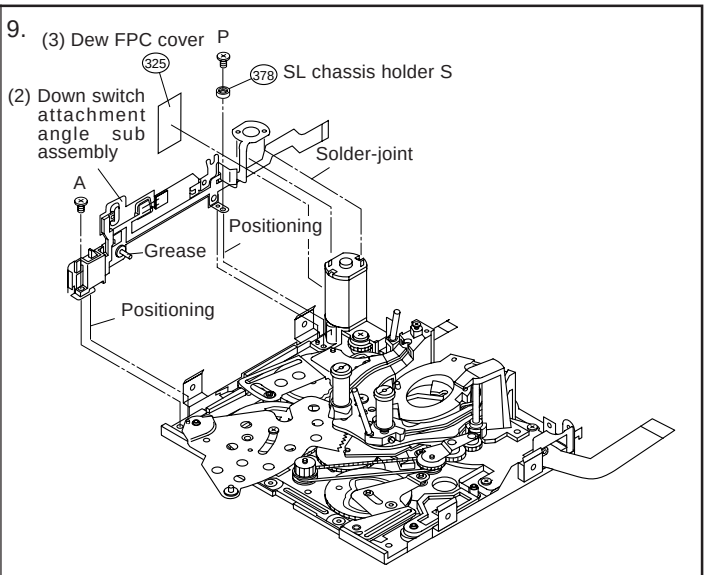
	Item	Tightening torque	Quantity
F	CWø0.7-ø2.2-t0.25	———	2
G	Special screw · M1.2 x L1.8	5mN·m (Tentative tightening)	2

8.



	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	70mN·m	4
H	Special screw with step· M1.4 x L6.25	70mN·m	1

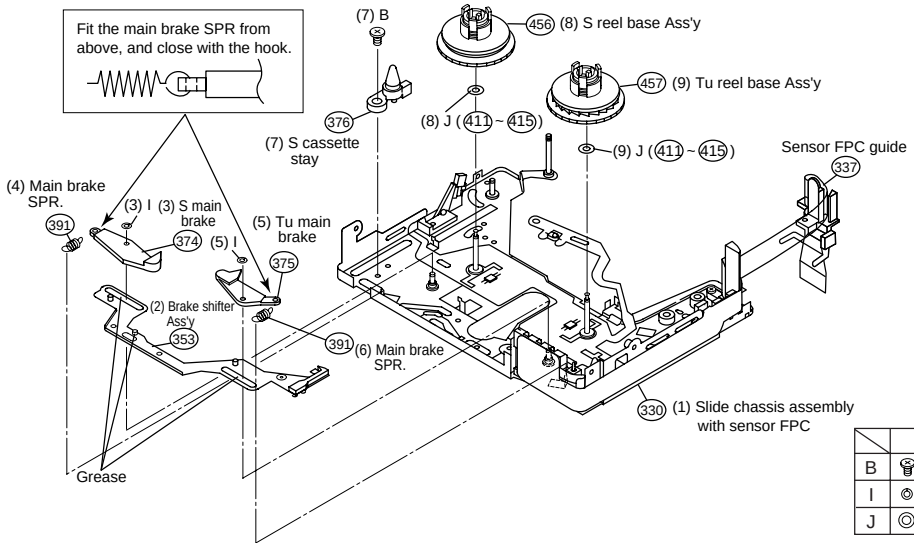
9.



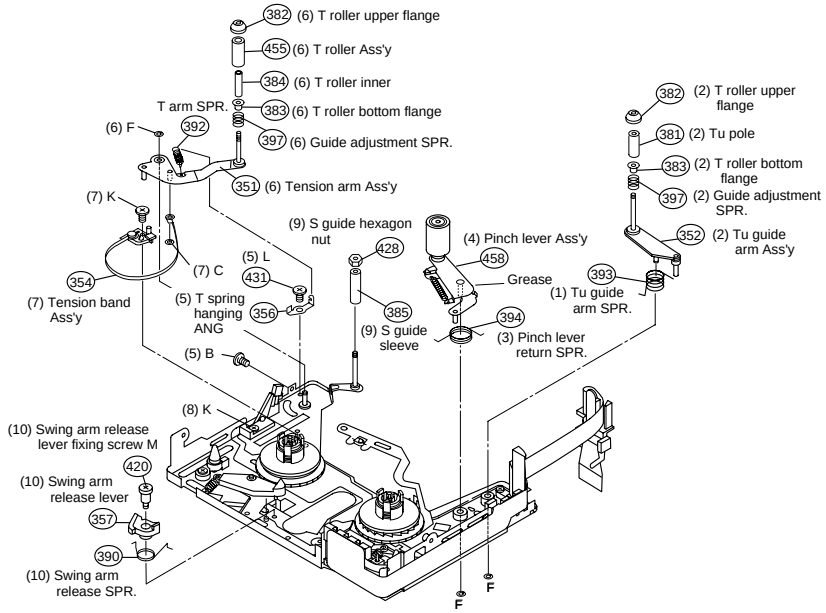
	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	70mN·m	1
P	S Tight · M1.4 x L4	70mN·m	1

8-5-2. Reassembly in side of the Slide chassis.

Note) Numbers before part names are given as a guide to the order of assembly.
As for greasing/oiling/cleaning places refer to the attached drawings (Grease/Oil application Fig. 3, 4).



	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	40mN·m	1
I	CWø0.7-ø1.8-t0.1	———	2
J	Wø1.2-ø2.5-t0.3	———	2



Note1) Be careful not to scratch or dent in the parts (381, 382, 383, 384, and 455), be careful not to deform the tension band in handling it.

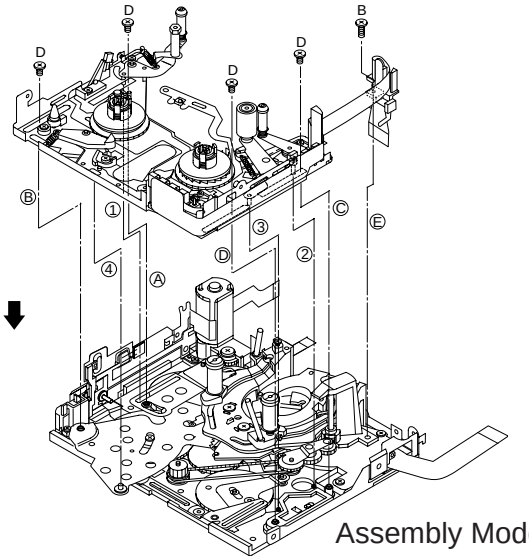
Note2) Be careful not to deform to tightening the 428 coat the Screw lock to the point of shaft.

	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	———	1
C	CWø1.2-ø3-t0.25	———	1
F	CWø0.7-ø2.2-t0.25	———	3
L	Type 2 minuteness · M1.4 x L1	40mN·m	1
K	Special head screw · M1.4 x L2	40mN·m	2
M	Special screw with step· M1.4 x L1	40mN·m	1

8-5-3. Main chassis assembly and slide chassis assembly assembling method

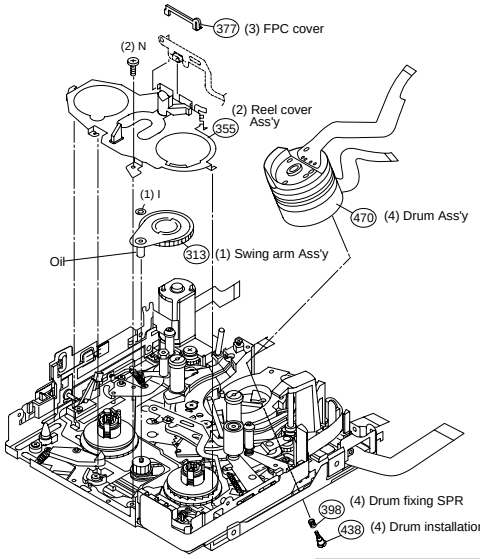
(1) Set the L/S mode (see the figure below).

(2) Insert the slide chassis side operation pins (① tension arm, ② Tu guide arm, ③ pinch lever) in the position shown below at the main chassis side, move the slide chassis in the arrow direction, using Ⓐ to Ⓔ as guides, insert the loading lever operation pin into the groove of slide chassis, and install with the 4 screws.



Assembly Mode

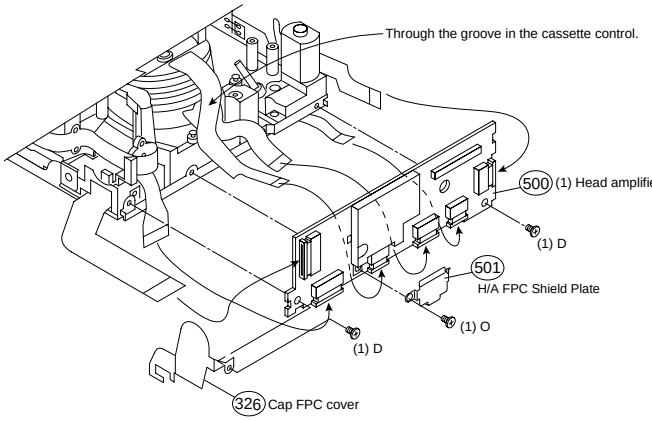
	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	40mN·m	1
D	Special screw · M1.4 x L1.6	40mN·m	4



*438 Tightening torque 70 ± 7mN·m

- Numbers before part names are given as a guide to the order of assembly.
- When treating the sensor FPC wire, pay attention to the part A shown in Fig. 6.
- Oil application place is shown in Fig. 5.

	Item	Tightening torque	Quantity
I	CWø0.7-ø1.8-t0.1	———	1
N	Type 1 minuteness · M1.4 x L1	40mN·m	1



	Item	Tightening torque	Quantity
D	Special screw · M1.4 x L1.6	40mN·m	2
O	Special screw · M1.4 x L2	40mN·m	1

GREASE/OIL APPLICATION

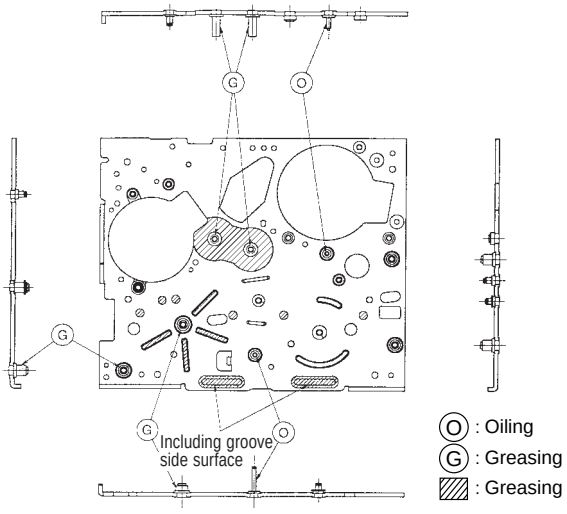


Fig. 1. Side of the main chassis

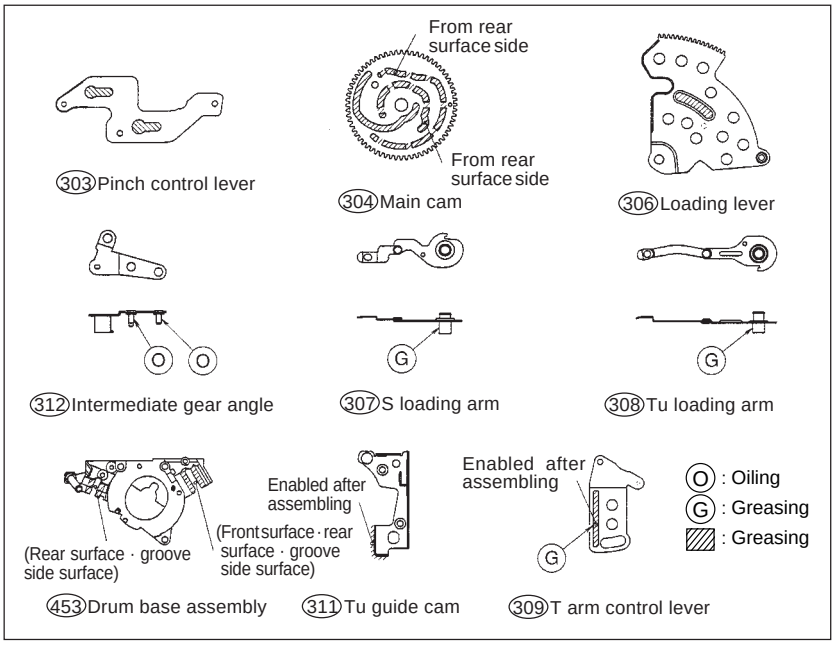

From rear surface side
From rear surface side
303 Pinch control lever
304 Main cam
306 Loading lever
312 Intermediate gear angle
307 S loading arm
308 Tu loading arm
Enabled after assembling
Enabled after assembling
(Rear surface · groove side surface)
(Front surface · rear surface · groove side surface)
453 Drum base assembly
311 Tu guide cam
309 T arm control lever
O : Oiling
G : Greasing
: Greasing

Fig. 2. Side of the main chassis

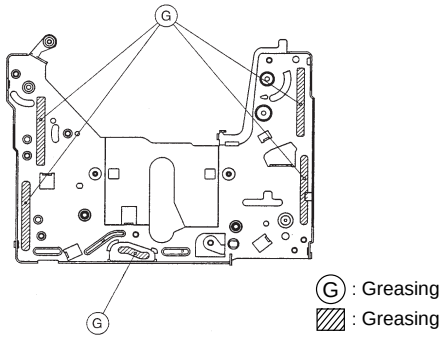


Fig. 3. Side of the slide chassis

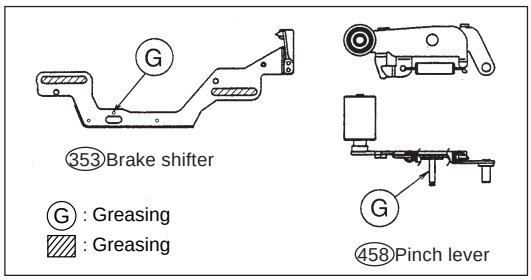


Fig. 4. Side of the slide chassis

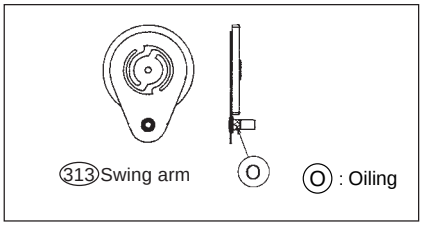


Fig. 5. After joining the main chassis and slide chassis

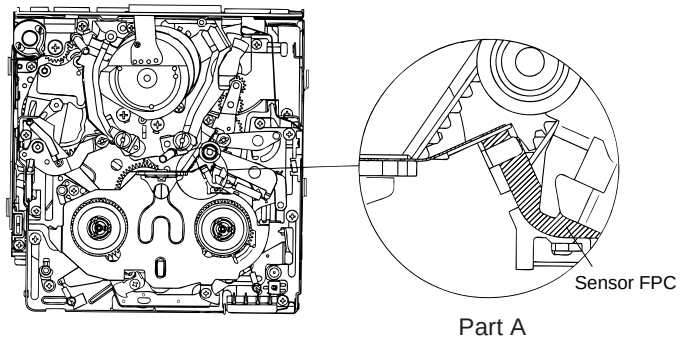


Fig. 6. Sensor FPC wiring

8-6. Removing the cassette

(1) Apply DC3V to the loading motor unload slightly.
(2) After the tape is slackened, turn the rotor (lower side of mechanism) of capstan motor to tighten the tape. (Arrow direction, Fig. 1)
(3) Repeat the operations (1) and (2). After the pole base has been completely unloaded, ascertain that the tape is not loose.
(4) Finally apply again DC3V to the loading motor, so that the cassette controller ejects.
(5) Take out the cassette.

Note) DC3V is applied to the loading motor as shown Fig 1. Then, the mechanism moves in the unloading direction.

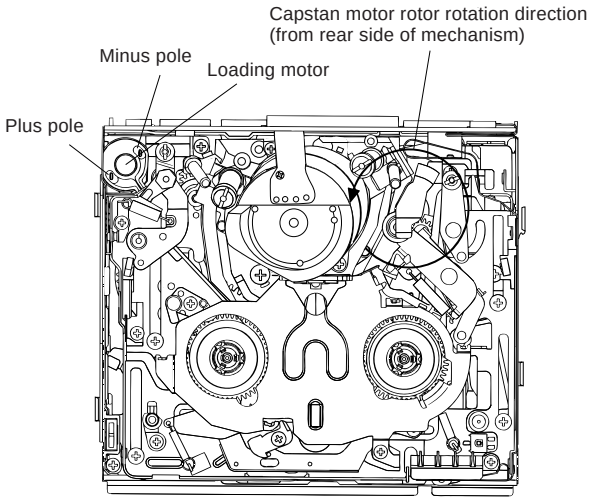


Fig. 1

9. ADJUSTING THE ELECTRICAL CIRCUITS

Before starting the electric circuit adjustment

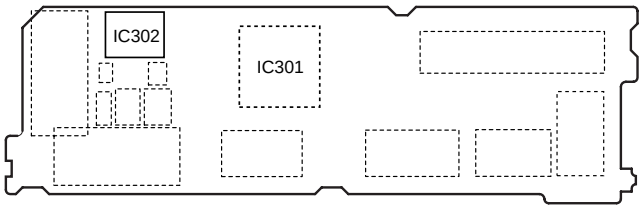
- The adjustment methods described herein are used, in most cases, when the expendable mechanical parts, including the video head, have been replaced, at which time the electrical circuits need to be readjusted. Before adjusting the electrical circuits, make sure that the mechanism works properly (i.e., the mechanism is properly adjusted). Incase of the occurrence of any problem to the electrical circuits, be sure to use the specified measuring instruments to locate the area to which the problem is occurring, and then take the necessary action, including repair, replacement or adjustment, exactly as instructed in the electrical adjustment methods that will follow.
  Do not attempt to make adjustments without using the proper measuring instruments.
- This machine is configured so that the electrical circuits inside its PWB unit are composed, for the most part, of high-density, small surface-mounted component parts for downsized machine body.
  To perform repair service or parts replacement, do so using a soldering iron, but in as short a time as possible; this is because surface-mounted component parts are generally so small in size and susceptible to heat, as compared with the large discrete parts used in TV sets, desk-top video decks, etc., that attempting to heat their electrodes for a longer time than is necessary with a soldering iron may result in their becoming defective.
  This applies particularly when replacing the laminated chip capacitors.
  For this purpose, ceramic soldering irons with a temperature regulator are recommended (iron tip temperature 250°C and soldering time 5 seconds or shorter).

Chip ID as per Digital Interface IEEE1394 Standard

The VL-PD3AS/AH/AE and other models that follow are newly equipped with the digital interface function. The Digital Interface IEEE1394 Standard stipulates that each set with the digital interface function be given its specific ID number. The ID number is written on the E^2PROM of the set while it is manufactured. If the E^2PROM alone or the PWB having this E^2PROM on it has been replaced for repair purpose, it is necessary to write a new ID number again. (Note that any replacement part does not have an ID number yet.)
Accordingly, the repair engineer must obtain the new ID number.

Writing a Chip ID number as per Digital Interface IEEE1394 Standard

Head amplifier PWB



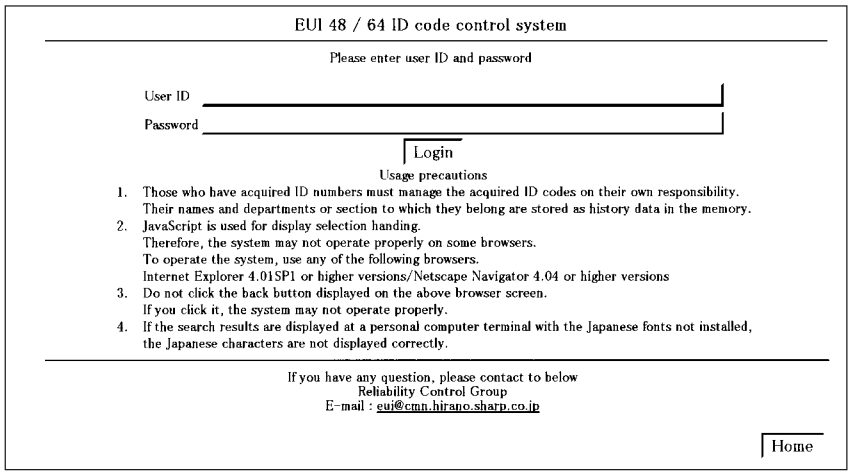
If the IC302 (E^2PROM) or the head amplifier PWB has been replaced, it is necessary to write a new ID number. (Note that any replacement part does not have an ID number yet.)
Obtain a new ID number from the service department of sales company. Take the following steps to write the ID number on the E^2PROM.

■ Manual for obtaining and handlig IEEE1394 ID number

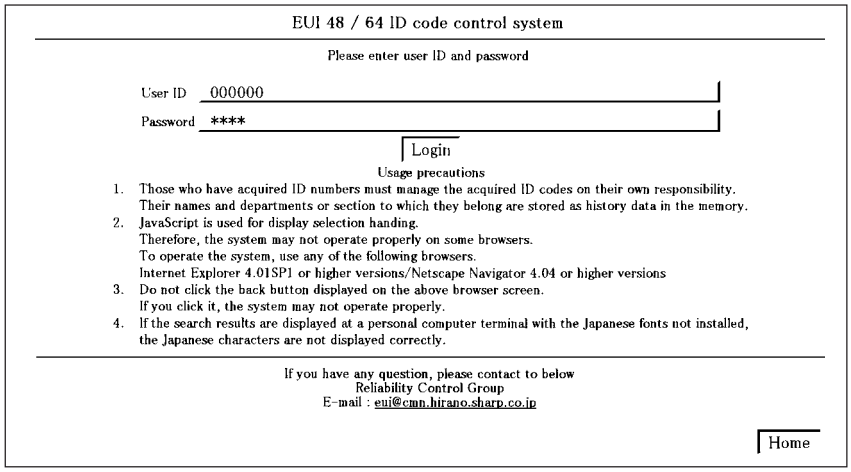
1. Access the intranet URL for the number below.
   URL: http://www.rog.kami.sharp.co.jp/quics/e_index.html
2. Now enter User ID and Password, then click Login .
   *ID and Password should be same as for "PARTS PEICE LIST".

■ ID code is acquired

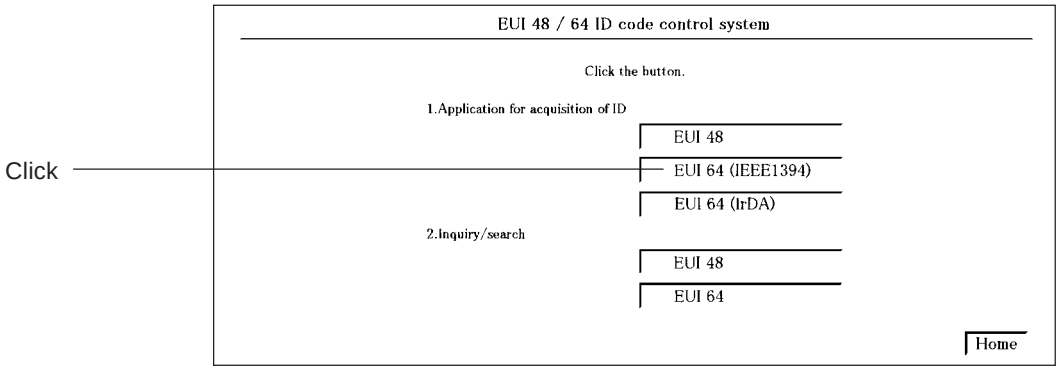
1. Connect with the EUI48/64 ID code control system.
   (1) Start the Internet Explorer or Netscape Navigator.
   (2) Access the following address.
   (URL:http://www.rcg.kami.sharp.co.jp/quics/e_index.html)
   Select the "EUI48/64 ID code control system" from the "Service" item.
   Note: If you want to establish a connection by directly inputting the URL, please input the following.
   URL:http://www1.rcg.kami.sharp.co.jp:7000/adrs_agt/adrs_dba/ide00010.main
   The login screen will appear.


EUI 48 / 64 ID code control system
Please enter user ID and password
User ID
Password
Login
Usage precautions
1. Those who have acquired ID numbers must manage the acquired ID codes on their own responsibility.
Their names and departments or section to which they belong are stored as history data in the memory.
2. JavaScript is used for display selection handing.
Therefore, the system may not operate properly on some browsers.
To operate the system, use any of the following browsers.
Internet Explorer 4.01SP1 or higher versions/Netscape Navigator 4.04 or higher versions
3. Do not click the back button displayed on the above browser screen.
If you click it, the system may not operate properly.
4. If the search results are displayed at a personal computer terminal with the Japanese fonts not installed,
the Japanese characters are not displayed correctly.
If you have any question, please contact to below
Reliability Control Group
E-mail : eui@cmn.hirano.sharp.co.jp
Home

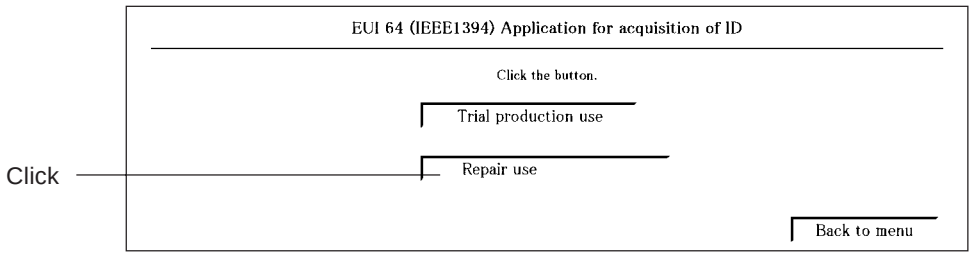
   (3) For the [User ID], input the [Password].
   Click on [Login].


EUI 48 / 64 ID code control system
Please enter user ID and password
User ID 000000
Password ****
Login
Usage precautions
1. Those who have acquired ID numbers must manage the acquired ID codes on their own responsibility.
Their names and departments or section to which they belong are stored as history data in the memory.
2. JavaScript is used for display selection handing.
Therefore, the system may not operate properly on some browsers.
To operate the system, use any of the following browsers.
Internet Explorer 4.01SP1 or higher versions/Netscape Navigator 4.04 or higher versions
3. Do not click the back button displayed on the above browser screen.
If you click it, the system may not operate properly.
4. If the search results are displayed at a personal computer terminal with the Japanese fonts not installed,
the Japanese characters are not displayed correctly.
If you have any question, please contact to below
Reliability Control Group
E-mail : eui@cmn.hirano.sharp.co.jp
Home

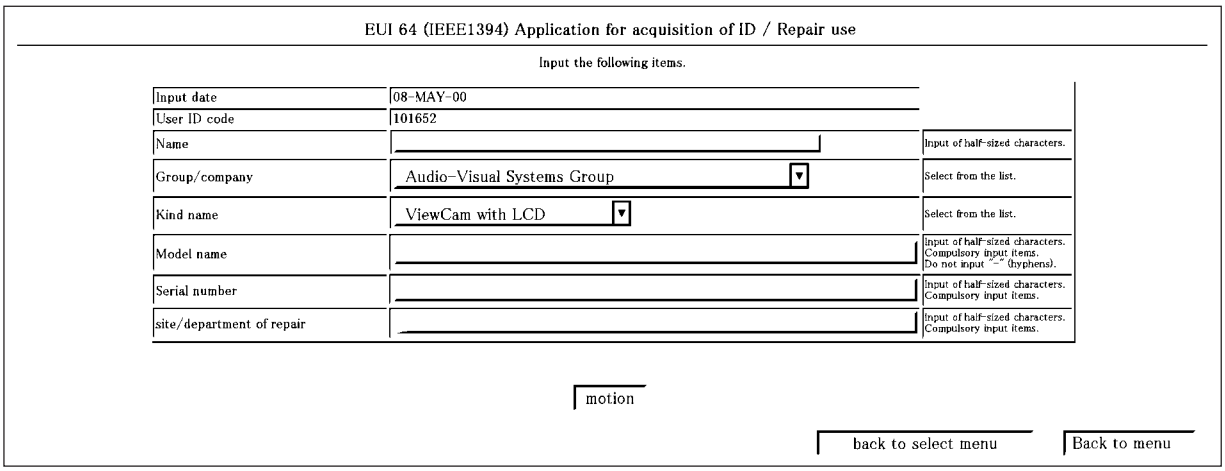
   (4) Click on [EUI 64 (IEEE 1394)] from the [1. Application for acquisition of ID].



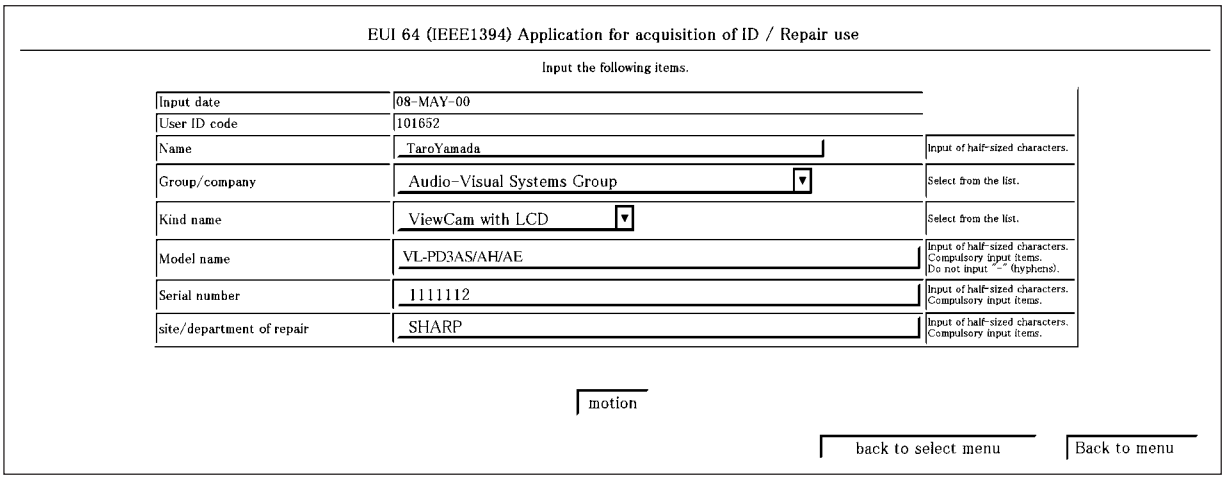
   (5) Click on [Repair use].



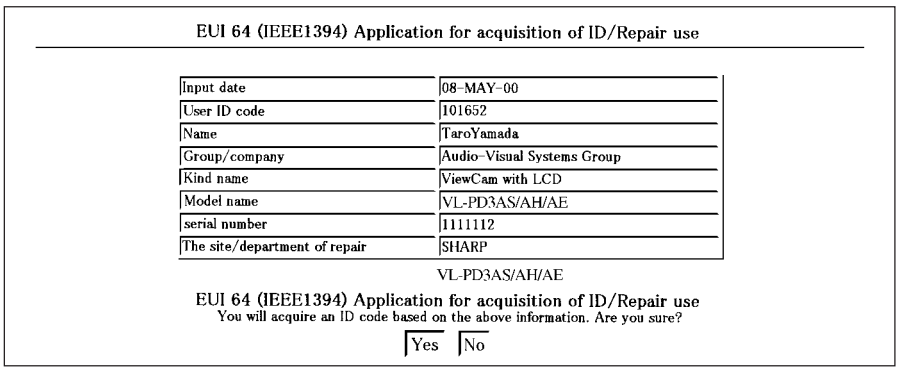
(6) Input the necessary information for the application.
For the indispensable input items, be sure to input them.
Select the [Group/company] and [Kind name] from the list.
Input the [Model name].
Input the [Serial number].
Input the [Site/department of repair].
For the input items when making each application, refer to the "Input item list for the ID acquisition application".



(7) Click on [motion].
The confirmation screen will appear.

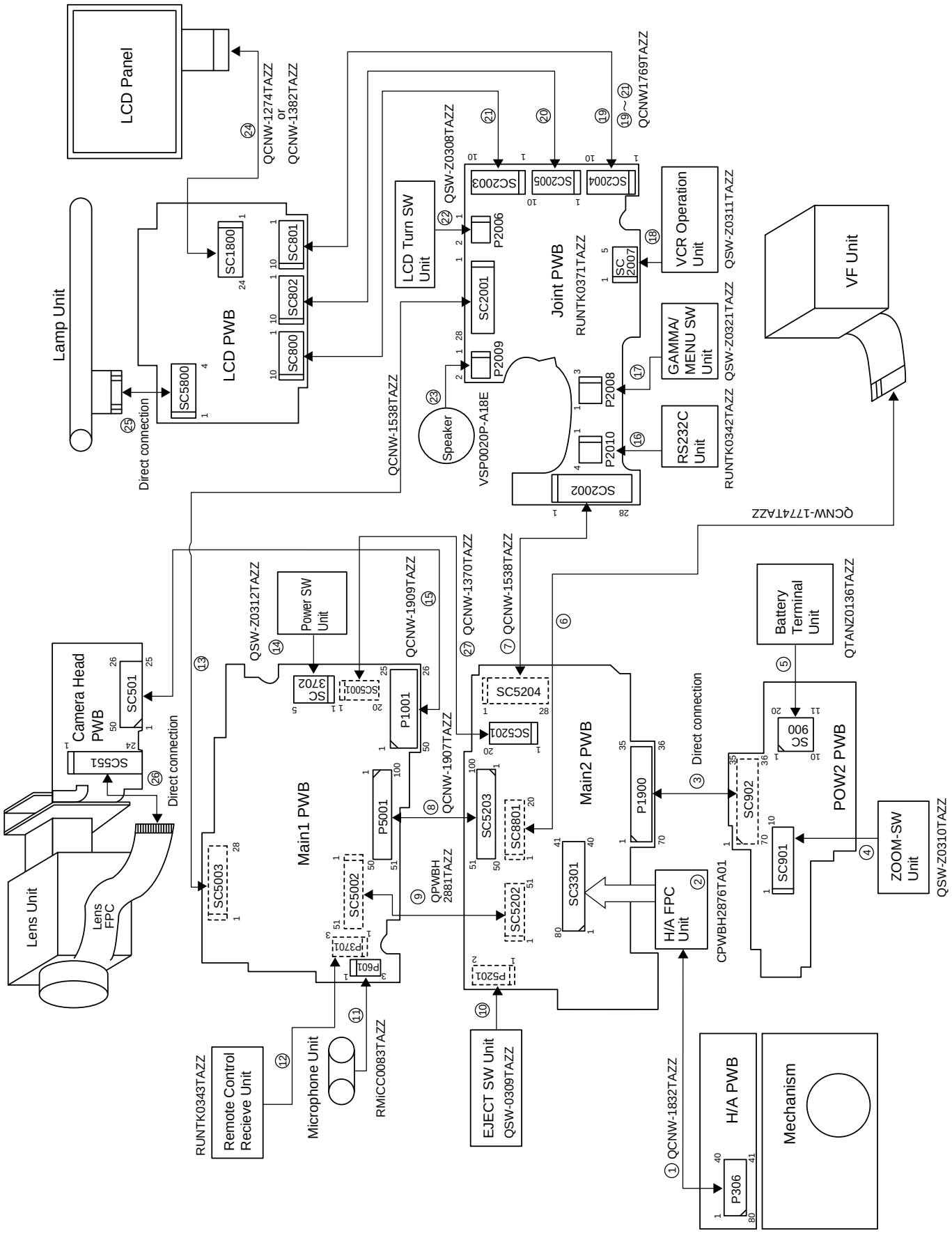


(8) Click on [Yes].



5. Print the application result.
(1) Print out the application result screen.
Control the application result as evidence.
To print it, select "Print (P)" from the "File (F)" in the menu bar or click on the print button in the tool bar.
(2) Click on [Menu] to complete the application.
If you create applications in succession, repeat steps (1)~(8).
To complete it, click on [End] in the menu screen.

VL-PD3AS/AH/AE Service jig configuration

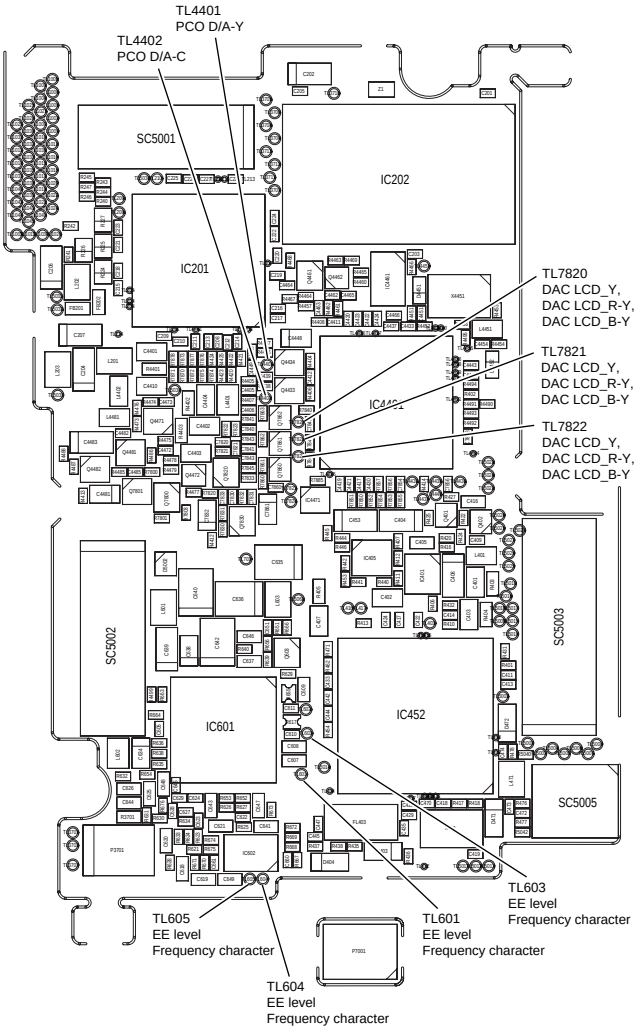


VL-PD3AS/AH/AE Specifications of service jigs

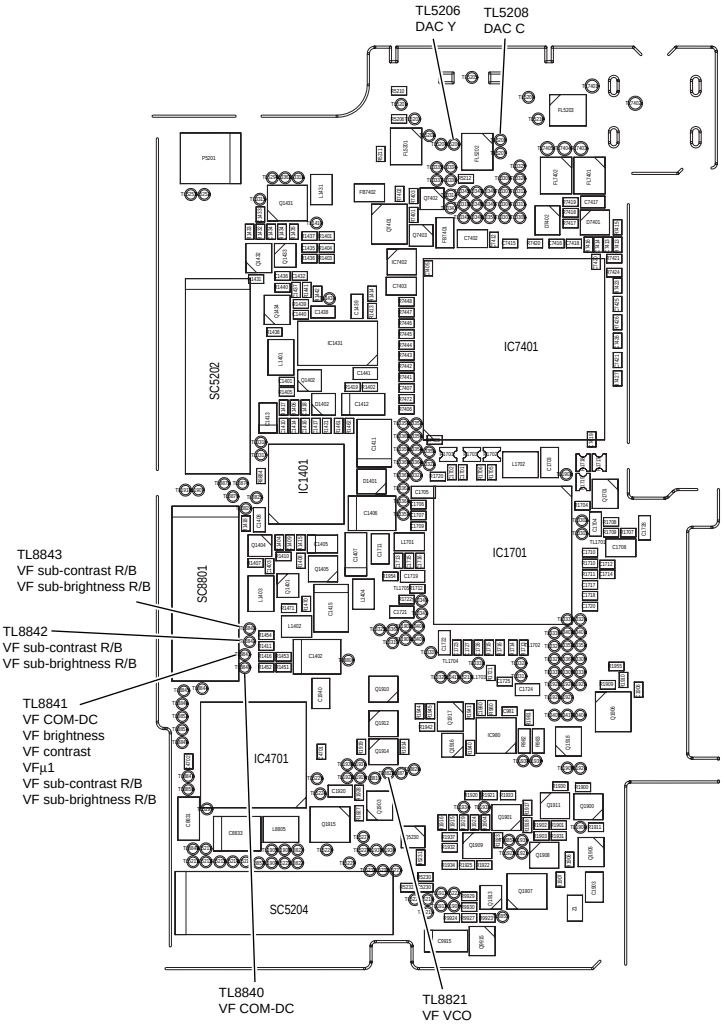
No.	Connection section	Connector REF. No.	No. of pins	New or Continuation	Part cord	Price code
1	H/A PWB–H/A FPC	P306←	80B-B	C	QCNW-1832TAZZ	BV
2	H/A FPC–MAIN2	→SC3301	80B-B		CPWBH2876TA01 Unit use	AS
3	POW2–MAIN2	SC902–P1900	70B-B		Direct connection	
4	POW2–ZOOM SW	SC901←	10		QSW-Z0310TAZZ Unit use	AT
5	POW2–Battery Terminal	SC900←	20B-B		QTANZ0136TAZZ Unit use	AR
6	MAIN2–VF	SC8801←	20	C	QCNW-1774TAZZ	BH
7	MAIN2–Relay	SC5204–SC2002	28	C	QCNW-1538TAZZ	BC
8	MAIN2–MAIN1	SC5203–P5001	100B-B	C	QCNW-1907TAZZ	BY
9	MAIN2–MAIN1	SC5202–SC5002	51		QPWBH2881TAZZ Unit use	AF
10	MAIN2–EJECT SW Unit	P5201←	2		QSW-Z0309TAZZ Unit use	AG
11	MAIN1–MIC	P601←	3		RMiCC0083TAZZ Unit use	AR
12	MAIN1–Remocon Light Reception Unit	P3701←	3		RUNTK0343TAZZ Unit use	AM
13	MAIN1–Relay	SC5003–SC2001	28	C	QCNW-1538TAZZ	BC
14	MAIN1–Power SW	SC3702←	5		QSW-Z0312TAZZ Unit use	AR
15	MAIN1–CAM HEAD	P1001–SC501	50B-B	C	QCNW-1909TAZZ	BT
16	Relay–RS232C Unit	P2010←	4		RUNTK0342TAZZ Unit use	AL
17	Relay–GAMMA/MENU SW	P2008←	3		QSW-Z0321TAZZ Unit use	AK
18	Relay–VCR OPE SW	SC2007←	5		QSW-Z0311TAZZ Unit use	AT
19	Relay–LCD	SC2004–SC801	10	C	QCNW-1769TAZZ	BF
20	Relay–LCD	SC2005–SC802	10	C	QCNW-1769TAZZ	BF
21	Relay–LCD	SC2003–SC800	10	C	QCNW-1769TAZZ	BF
22	Relay–LCD Turn SW	P2006←	2		QSW-Z0308TAZZ Unit use	AG
23	Relay–Speaker	P2009←	2		VSP0020P-A18E Unit use	AL
24	LCD–LCD Panel	SC1800–Panel	24	C	QCNW-1274TAZZ or QCNW-1382TAZZ	AZ BD
25	LCD–LAMP Unit	SC5800←	4		Direct connection : High tension caution	
26	LENS Unit–CAM HEAD	LENS FPC–SC551	24		Direct connection	
27	MAIN2–MAIN1	SC5201–SC5001	20	C	QCNW-1370TAZZ	AR

[TEST POINT]

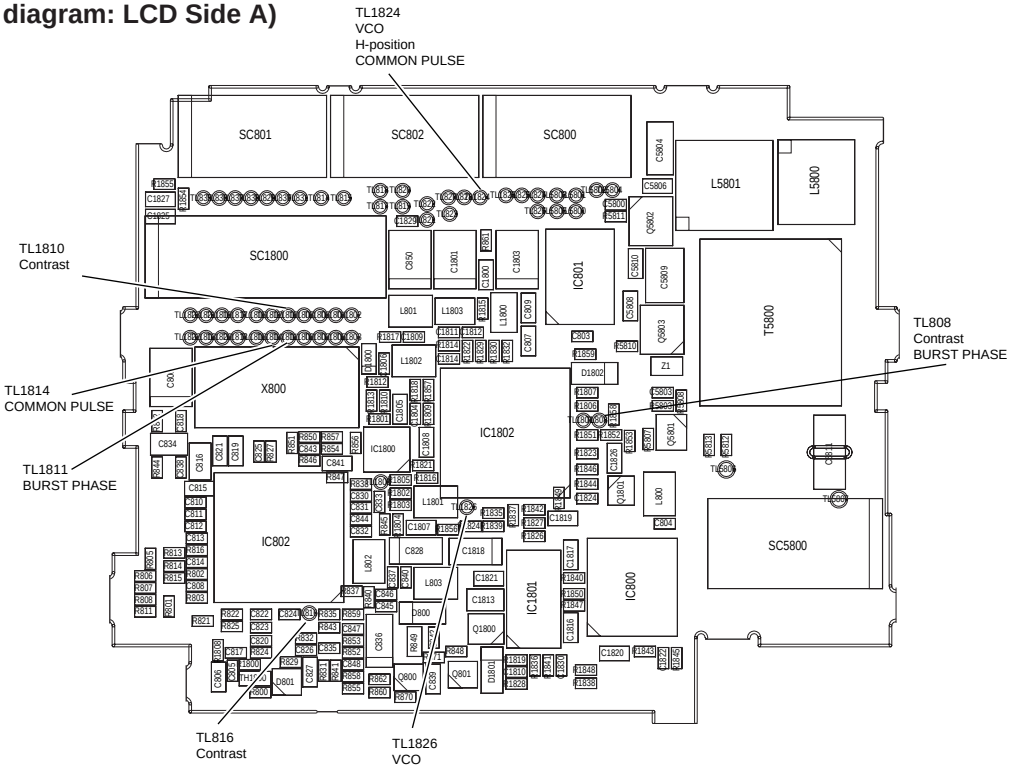
(Wiring board diagram: Main1 Side A)



(Wiring board diagram: Main2 Side B)



(Wiring board diagram: LCD Side A)



[Making adjustments]
Adjusting the servo system controller and related parts
1. Setting the system codes

Replacement of IC702 E^2PROM requires the following data to be set in this order.

[Procedure]

Set the unit to the VCR mode and set the data for each address.

Code	1. Model code		2. Destination code			3. Specifications code		4. Menu selection code		5. Software switching code		6. Calendar switching	
Address	01	09		02	0A	03	0B	04	0C	05	0D	07	0F
Data	00	FF	S	0A	F5	14	EB	00	FF	00	FF	00	FF
			E	0B	F4								
			H	0D	F2								

When replacing the IC702 E^2PROM, first make the following settings and then start the adjustments.

(1) Electromagnetic conversion

Address	27	28	2B	*105	25	26
Data	40	90	90	80	40	90

* The address uses only when replacing the IC302.

• Adjustment with automatic machine

Mode	VCR ADJ mode
Procedure	1) Using the 12 command, set the VCR adjustment mode. 2) Using the 20 command, give the E^2PROM Write permission. 3) Set the system code with the 22 command for each type. 4) Using the command, set write inhibition. 5) Using the command, cancel the adjustment mode.
Examples	• During E^2PROM (IC702) replacement.

• Manual adjustment

Mode	VCR ADJ mode
Procedure	1) Set the CAM/OFF/VCR selection switch to VCR. 2) Press “CONTINUE” → ”VCR adjustment” on the remote controller to set the VCR adjustment mode. (At this time an indication “VCR ADJ” appears at the left lower side.) Enter a setting corresponding to the address. <Setting method> 3) Adjust the address by moving up and down the blinking numeral with the FF and REW key, and fix the address by pressing the PB key. 4) Adjust to the setting by moving up and down the blinking numeral with the FF or REW key, and set data by pressing the PB key. 5) Press the STOP key to set the address set state. 6) Repeat the operations 3), 4) and 5) as much as input addresses. After completion of input of all items hold down the “CONTINUE” key to cancel the VCR adjustment mode. 7) Set the CAM/OFF/VCR selection switch to OFF.
Examples	• During E^2PROM (IC702) replacement.

2. HSWP adjustment

Mode	VCR ADJ mode
Procedure	1) Play back the alignment tape in the video mode. 2) Press the "CONTINUE" and "HSWP ADJ" keys on the adjustment remote control in this order. → This executes the HSWP adjustment. When the adjustment is successful, the LCD lights up [OK] and the cassette is automatically ejected. If not properly adjusted, the LCD lights up [NG].
Examples	• During mechanism replacement. • During E^2PROM replacement (IC302 inside the head amplifier circuit board).

3. SHUT OFF adjustment

Mode	VCR ADJ mode
Procedure	1) Load a recordable tape, and set the camera mode. 2) Press the "CONTINUE" and then the "TEST SEL" on the remote control for adjustment to enter the TEST mode (T-01 blinks). 3) Select T-03 with the FF or REW key and then press the PB key. 4) Observing the power voltage from TL900(-), set it so that TL904(+) obtains 6.00V ± 50mV. 5) Press the PB key on the main unit. Turn off the power and the adjustment is completed.
Examples	• During microcomputer (IC701) or E^2PROM (IC702) replacement.

• Mechanism Error Message

When an error occurs (while "EJECT THE CASSETTE", is displayed.), hold down the "STOP" key for about 3 seconds to see what kind of error occurs.

No.	Description	No.	Description
E007	CAP FG is not input for more than 1 second.	E020	DRUM FG is not input for more than 100 m/sec.
E011	Though L/M rotates in the forward direction for more than 5 seconds (or 10 seconds), the set does not enter the next mode.	E025	The TU reel sensor is activated.
		E026	The SU reel sensor is activated.
E012	Though L/M rotates in the reverse direction for more than 5 seconds (or 10 seconds), the set does not enter the next mode.		

Note: E020, 025 or 026 occurs often due to scratches on the tape, condensation, etc. rather than due to trouble of the set. Therefore, if E020, 025 or 026 occurs, be sure to take out the cassette, and then play it back again to check whether the set operates properly.

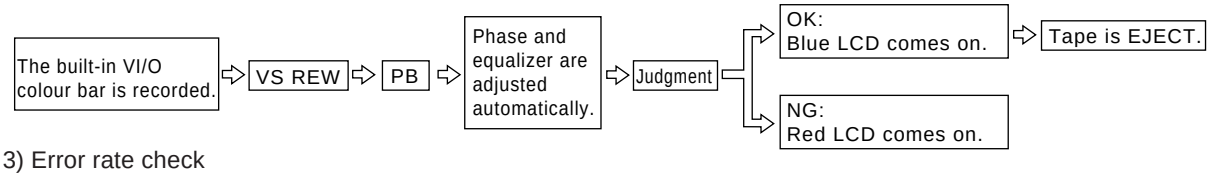
ADJUSTING THE ELECTROMAGNETIC CONVERSION CIRCUIT SYSTEM

1. PLL VCO adjustment

Mode	VCR ADJ mode
Procedure	1) Playback the alignment tape (or a self-recorded tape). 2) Call the adjustment mode (V-ADJ). 3) Set the address "2A" and call the data. 4) Set the called data with the FF/REW key to the point where the playback screen appears. (At this time, the screen full of block noise is OK.)
Examples	• During E^2PROM replacement. • During circuit board (Main) replacement.

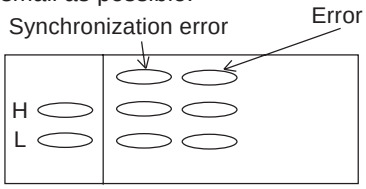
2. Phase and equalizer adjustment → (Performed in the VCR mode)

Mode	VCR ADJ mode
Procedure	1) Load a self-recorded tape into the deck. 2) After playback for 3 minutes, select the test mode 0F using the remote control for adjustment to start the automatic adjustment. (The following sequence is automatically performed.)



3) Error rate check
Select and fix the TEST MODE 0B on the adjustment remote control.
4) Manual adjustment method (video adjustment mode)
* Perform this adjustment with the self-recording/playback in the LP mode.
For phase, vary the data for the address 26 and 2B, and for equalizer, vary the data for the address 25 and 27, to set the error rate is made as small as possible.

	Phase	Equalizer
H ch side	2B	27
L ch side	26	25

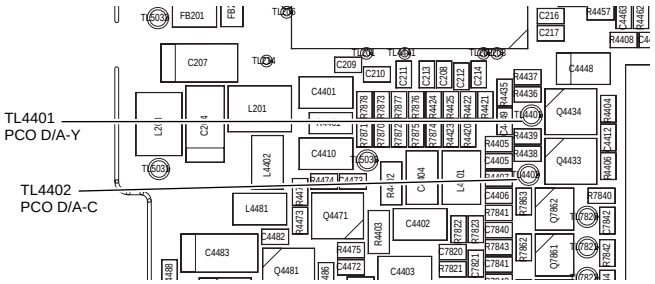


Synchronization error	20 or less
Error rate	200 or less (SP Mode)
	330 or less (LP Mode)

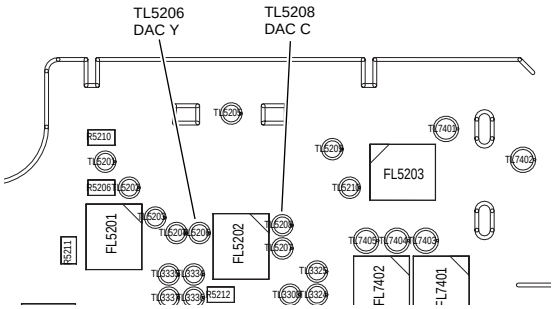
Examples	• During mechanism replacement. • During circuit board (Main) replacement. • During E^2PROM replacement.

ADJUSTING THE VIDEO I/O CIRCUIT SYSTEM

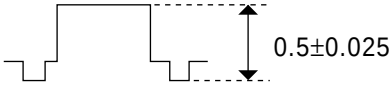
(Wiring board diagram: Main1 Side A)



(Wiring board diagram: Main2 Side B)



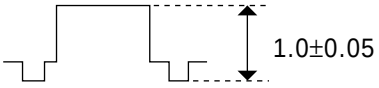
1. PCO D/A-Y adjustment

Test point	TL4401 (connected to oscilloscope)	Mode	EE mode
Procedure	1) Connect the AVS cable and then connect it to the monitor (TO). 2) Call the adjustment mode (V-ADJ). 3) Set the address to "22", and call the date. (100% white signal is output.) 4) Vary the date with the FF and REW keys to set the signal appearing at TL4401 to 0.5Vp-p ± 0.025Vp-p. 		
Examples	• During E²PROM replacement. • During IC4401 replacement.		

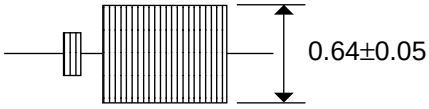
2. PCO D/A-C adjustment

Test point	TL4402	Mode	EE mode
Procedure	1) Connect the AVS cable and then connect it to the monitor (TO). 2) Call the adjustment mode (V-ADJ). 3) Set the addresses C0/C1/C2/C3 to 90/E6/80/80, respectively. 4) Set the address to "23", and call the data. 5) Vary the data with the FF and REW keys to set the signal appearing at TL4402 to 0.52Vp-p ± 0.05Vp-p. 6) Reset the addresses C0/C1/C2/ C3 to FF.		
Examples	• During E²PROM replacement. • During IC4401 replacement.		

3. DAC Y adjustment

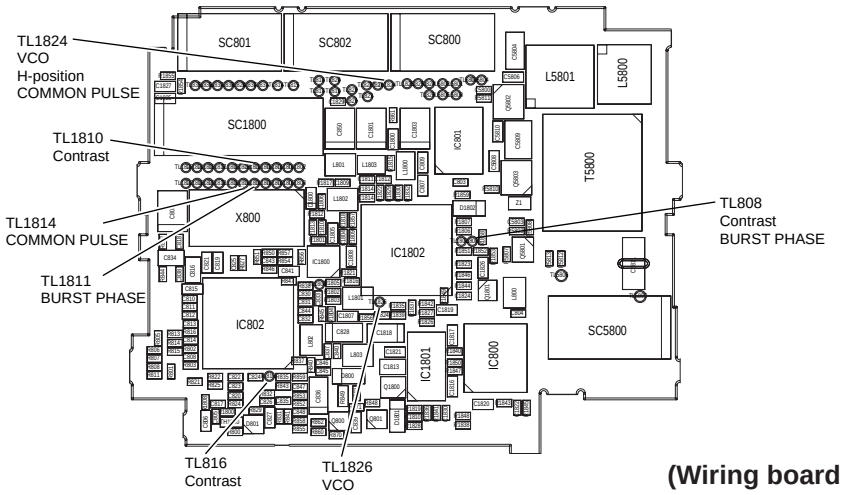
Test point	TL5206 (connected to oscilloscope)	Mode	EE mode
Procedure	1) Connect the AVS cable and then connect it to the monitor (TO). 2) Call the adjustment mode (V-ADJ). 3) Set the address to "2D", and call the data. (100% white signal is output.) 4) Vary the data with the FF and REW keys to set the signal appearing at TL5206 to 1.0Vp-p ± 0.05Vp-p. 		
Examples	• During E²PROM replacement. • During IC4401 replacement. • During IC1401 replacement.		

4. DAC C adjustment

Test point	TL5208	Mode	EE mode
Procedure	1) Connect the AVS cable and then connect it to the monitor (TO). 2) Call the adjustment mode (V-ADJ). 3) Set the address to "24", and call the data. 4) Vary the data with the FF and REW keys to set the signal appearing at TL5208 to 0.64 ± 0.05Vp-p. 		
Examples	• During E²PROM replacement. • During IC4401 replacement. • During IC1401 replacement.		

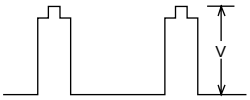
ADJUSTING THE LCD CIRCUIT

* To make this adjustment, set the backlight switch to the "NORMAL" position.



(Wiring board diagram: LCD Side A)

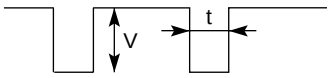
1. Contrast adjustment

Test point	TL1810 (G-OUT)	Address	81
Mode	VCR AV input		
Procedure	1) Set the data of the address 85 to 80. 2) Input white 100% as an AV input. 3) Connect TL808 to GND. (The 1H inversion stop) 4) Connect 220 KΩ between TL816 and GND. 5) Seeing the waveform of TL1810 (G-OUT), make an adjustment between the white peak and the sync tip. 		
Adjustment rating	3.0V ± 0.1V		
Examples	• During E²PROM (IC801) replacement. • During LCD decoder IC (IC802) replacement.		

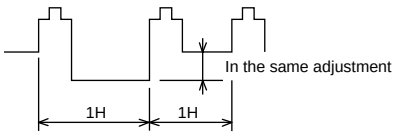
2. VCO adjustment

Test point	TL1824	Address	89
Mode	VCR AV input		
Procedure	1) Connect TL1826 to GND. (Free run mode) 2) Connect the Frequency counter to TL1824 and adjust it.		
Adjustment rating	15.625kHz ± 100kHz		
Examples	• During E²PROM (IC801) replacement. • During LCD decoder IC (IC802) replacement.		

3. H-position adjustment

Test point	TL1824	Address	84
Mode	VCR AV input		
Procedure	1) Input the white 100% signal as an AV input. 2) Connect the oscilloscope to TL1824, and adjust the pulse width. 		
Adjustment rating	3.3µsec ± 0.15µsec		
Examples	• During E²PROM (IC801) replacement. • During LCD controller IC (IC1802) replacement.		

4. BURST PHASE adjustment

Test point	TL1811	Address	E7
Mode	VCR AV input		
Procedure	1) Input the monochrome signal (R) into AV input. 2) Connect TL808 to GND. (The 1H inversion stop) 3) Set the data of the address E6 to 30. 4) Minimize the signal level difference of TL1811 every 1H. 		
Adjustment rating	± 400mV		
Examples	• During E²PROM (IC801) replacement. • During LCD decoder IC (IC802) replacement.		

5. COMMON PULSE adjustment

Test point	TL1814	Address	88
Mode	VCR AV input		
Procedure	1) Set the data of address 85 at the address 80. 2) Input the white 100% signal as an AV input. 3) Connect the oscilloscope to TL1824, and adjust the pulse width.		
Adjustment rating	6.3Vp-p ± 0.1Vp-p		
Examples	• During E^2PROM (IC801) replacement. • During LCD decoder IC (IC802) replacement.		

6. COM-BIAS adjustment

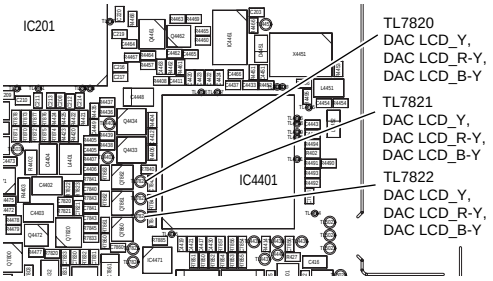
Test point	LCD panel daisplay surface	Address	8A
Mode	VCR AV input		
Procedure	1) Input the white 40% signal as an AV input, and set data of address 85 at the address 80. 2) Set the illuminometer (TOPCON IM-3) on the LCD panel surface (do not allow entry of external light). (Shut off the external light.) 3) Connect the illuminometer to the oscilloscope. 4) Make an adjustment so as to minimize the ripple of output waveform. Response time: 0.6 sec 5) Adjust again if longitudinal stripe appears evidently. * Or set to the point where the black is settled deepest with the grey scale signal.		
Adjustment rating	Minimum		
Remark	Make this adjustment after 5-minute or longer aging.		
Examples	• During E^2PROM (IC801) replacement. • During LCD decoder IC (IC802) replacement.		

7. White Balance adjustment

Test point	LCD panel display surface	Address	82, 83
Mode	VCR AV input		
Procedure	1) White fade signal input. 2) Adjust so as to get the same white fade screen as that of standard monitor.		
Adjustment rating	Standard monitor		
Remark	Make this adjustment after 5-minute or longer aging.		
Examples	• During E^2PROM (IC801) replacement. • During LCD decoder IC (IC802) replacement.		

MAIN2 (VIDEO I/O ENG DAC CIRCUIT)

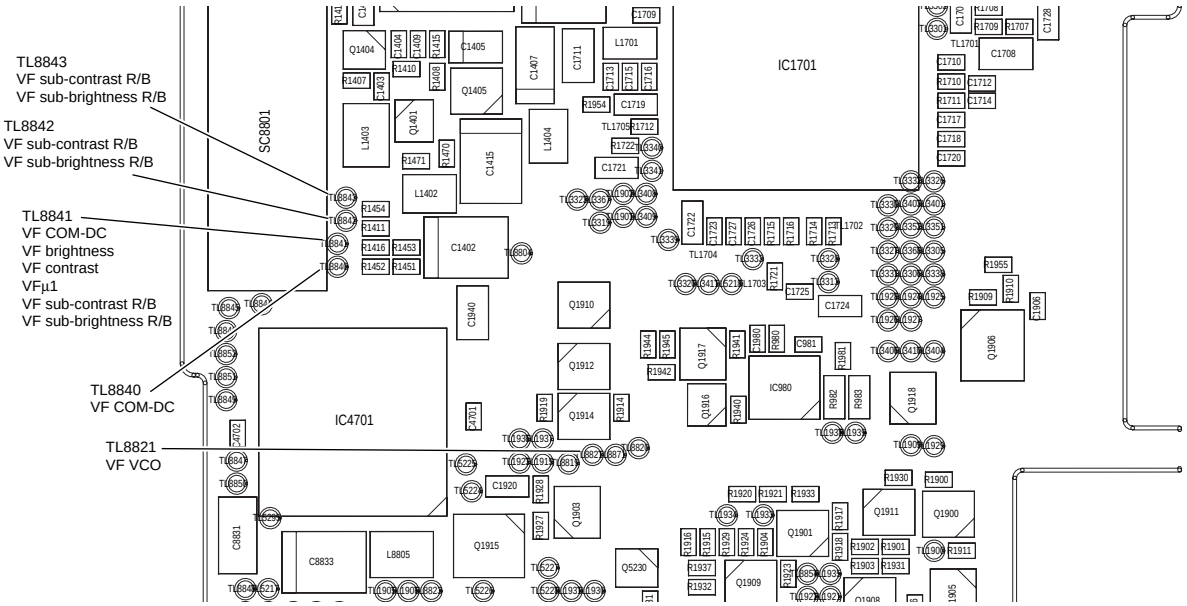
(Wiring board diagram: Main1 Side A)



8. DAC LCD_Y adjustment, DAC LCD_R-Y adjustment, DAC LCD_B-Y adjustment

Test point	TL7820(Y OUT), TL7821(R-Y OUT), TL7822(B-Y OUT)	Mode	CAM
Address	VCR ADJ 3D(Y), VCR ADJ 3E(R-Y), VCR ADJ 3F (B-Y)		
Procedure	1) Change the address C0/C1/C2/C3/C9 to 90/EB/80/80/00. 2) Adjust the output voltage of TL7820 with the address 3D and the DC voltage with a digital voltmeter to the adjustment standard value. 3) Adjust the output voltage of TL7821/TL7822 with the address 3E/3F and the DC voltage with a digital voltmeter to the adjustment standard value. (The same as (2)) 4) Return the address C0/C1/C2/C3/C9 to its former state. Note: When changing C9 FF to 00, the OSD display of LCD/VF disappears. Observing the monitor output, make the adjustment. Be sure to return it to FF after adjustment.		
Adjustment rating	0.450V ± 5mV (Y OUT), 0.252V ± 2mV (R-Y OUT), 0.319V ± 2mV (B-Y OUT)		
Examples	• During IC4401, IC4701 or IC702 replacement.		

(Wiring board diagram: Main2 Side B)



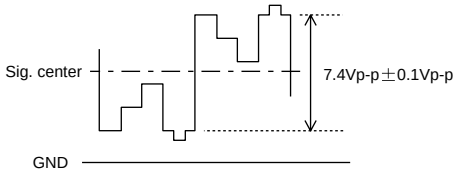
9. VF VCO adjustment

Test point	TL8821	Address	VCR ADJ 32
Mode	VCR AV input		
Procedure	1) Use 3-STEP staircase wave as an input signal. 2) Connect TL8821 to a digital voltmeter and adjust the DC voltage with the address 32 to the adjustment standard value.		
Adjustment rating	1.85 ± 0.1V		
Examples	• During IC702 or IC8800 replacement.		

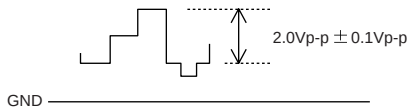
10. VF COM-DC adjustment

Test point	TL8840(VCOM)	Address	89
Mode	VCR AV input		
Procedure	1) Use 3-STEP staircase wave as an input signal. 2) Read the output of TL8841(VG) and the DC voltage with a digital voltmeter (VG_{DC}). 3) Read the output of TL8840(VCOM) and the DC voltage with a digital voltmeter ($VCOM_{DC}$). 4) Make the adjustment so that ($VCOM_{DC}$ - VG_{DC}) is within the adjustment rating.		
Adjustment rating	-0.15 ± 0.1V		
Examples	• During IC702 or IC8800 replacement.		

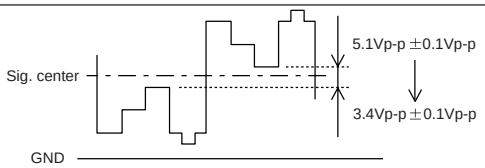
11. VF brightness adjustment

Test point	TL8841(VG)	Address	VCR ADJ 80
Mode	VCR AV input		
Procedure	1) Use 3-STEP staircase wave as an input signal. 2) Change VCR ADJ:8C to 1F. 3) Adjust the waveform of TL8841(VG) between pedestals to the specified level. 4) Return VCR ADJ:8C to the former state.		
Adjustment rating	7.4Vp-p ± 0.1Vp-p 		
Examples	• During IC702 or IC8800 replacement.		

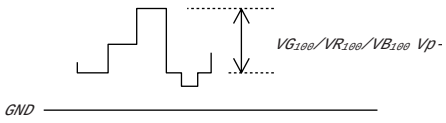
12. VF contrast adjustment

Test point	TL8841(VG)	Address	VCR ADJ 83
Mode	VCR AV input		
Procedure	1) Use 3-STEP staircase wave as an input signal. 2) Change VCR ADJ:8C to 1F. 3) Set the address 86/87 to FF. 4) Adjust the waveform of TL8841(VG) between pedestal and 100% to the specified level. 5) Return VCR ADJ:8C to the former state.		
Adjustment rating	2.0Vp-p ± 0.1Vp-p 		
Examples	• During IC702 or IC8800 replacement.		

13. VFγ1 adjustment

Test point	TL8841(VG)	Address	VCR ADJ 87
Mode	VCR AV input		
Procedure	1) Use 3-STEP staircase wave as an input signal. 2) Change VCR ADJ:8C to 1F. 3) Adjust the waveform of TL8841(VG) between white 100% and white 100% with VCR ADJ:87 to 5.1 ± 0.1Vp-p. 4) Then adjust the same waveform with VCR ADJ:83 to 3.4 ± 0.1Vp-p. 5) Return VCR ADJ:8C to the former state.		
Adjustment rating	5.1 ± 0.1Vp-p (VCR ADJ:87) 3.4 ± 0.1Vp-p (VCR ADJ:83) 		
Examples	• During IC702 or IC8800 replacement.		

14. VF sub-contrast R/B adjustment

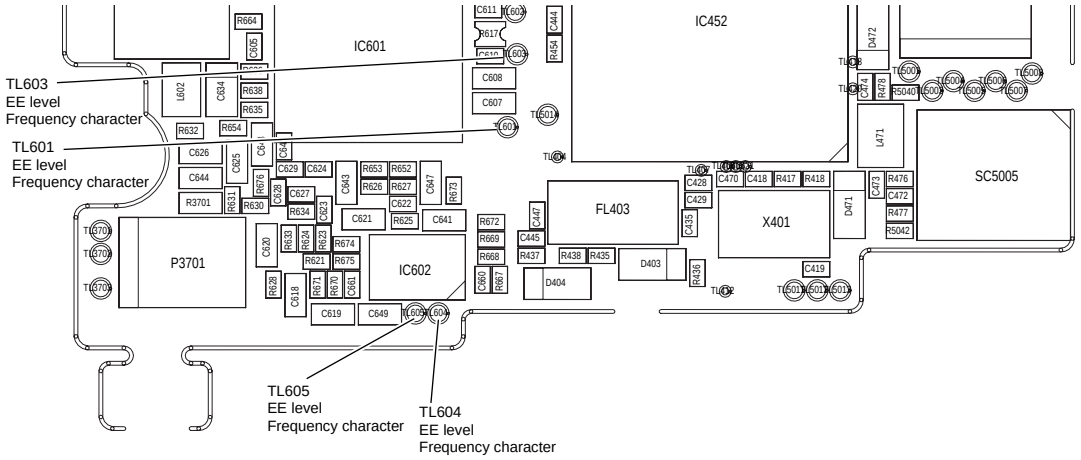
Test point	TL8842(VR), TL8841(VG), TL8843(VB)	Address	VCR ADJ 84(VR), VCR ADJ 85(VB)
Mode	VCR AV input		
Procedure	1) Use 3-STEP staircase wave as an input signal. 2) Adjust the 100% waveform of TL8841(VG) and TL8842(VR) between amplitudes to the specified level. 3) Adjust the 100% waveform of TL8841(VG) and TL8843(VB) between amplitudes to the specified level.		
Adjustment rating	0 ± 40mV(VR_{100} - VG_{100}), 0 ± 40mV(VB_{100} - VG_{100}) 		
Examples	• During IC702 or IC8800 replacement.		

15. VF sub-brightness R/B adjustment

Test point	TL8842(VR), TL8841(VG), TL8843(VB)	Address	VCR ADJ 81(R), VCR ADJ 82(B)
Mode	VCR AV input		
Procedure	1) Input white 40% signal into the AV input and standard monitor. 2) Adjust it with the VCR ADJ address 81/82 so as to obtain the same color as the standard monitor.		
Adjustment rating	Standard monitor		
Examples	• During IC702 or IC8800 replacement.		

ADJUSTING THE MIC AMP CIRCUIT

(Wiring board diagram: Main1 Side A)



1. EE level check

Measuring instrument	Valve voltmeter	Test point	TL605, TL604
Mode	P-ON (CAM)	Adjustment rating	-8.5dBs ± 3dB
Test signal	1kHz -54dBs sine wave		
Procedure	1) Input 1kHz, -54dBs sine wave into TL601(INT MIC L) and TL603(INT MIC R). 2) Make sure that the signal level of TL605 Audio-L out and TL604 Audio-R out is within the standard limits.		
Remark	———————		

2. Frequency character check

Measuring instrument	Valve voltmeter	Test point	TL605, TL604
Mode	P-ON (CAM)	Adjustment rating	(1kHz standard) 100Hz: -12dBs ± 3dB 10kHz: 0dBs ± 3dB
Test signal	100Hz, 10kHz -54dBs sine wave		
Procedure	1) Input 100Hz, -54dBs sine wave and then 10kHz, -54dBs sine wave into TL601(INT MIC L) and TL603(INT MIC R). 2) At this time make sure that the signal level of TL605 Audio-L out and TL604 Audio-R out is within the standard limits (1kHz standard).		
Remark	———————		

DV INTERFACE (IEEE1394) ID SETTING

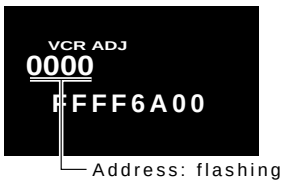
If ID code is acquired, it is written by the following point.

Example) Acquisition code : 08001F0100123456

Address	180	17F	17E
Data(ID code)	12	34	56

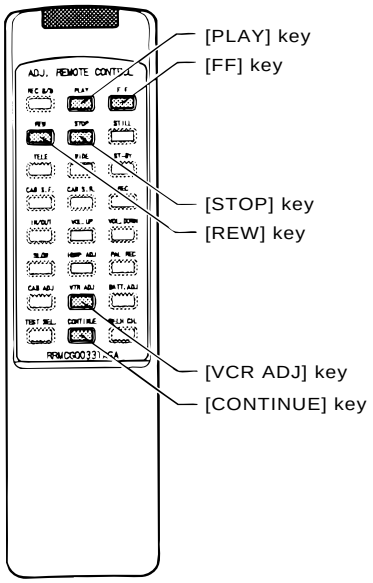
・Procedures for Entering IEEE1394 Numbers

1. Set the power switch to the "VCR" position.
2. Press "CONTINUE" on the adjustment remote control, then press "VCR ADJ" and the address you chose will appear on the LCD monitor.



3. With "FF" or "REW" the desired address will appear. Set with "PLAY" and data entry will show.

4. With "FF" or "REW" the ID number (obtained through the Intranet) for any address wil appear. Set with "PLAY".
5. Press "STOP" and the address selection will appear. Then you can enter your ID number in order under the given address digits (180, 17F, 17E).
6. Set the power switch to the "OFF" position. Now the writing is complete.



ADJ. REMOTE CONTROL
RRMCG 0033 TASA

9-2. Camera Section Adjustments

9-2-1. Camera section service

(1) Camera adjustment is performed after the set has been completed.

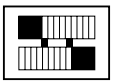
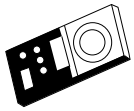
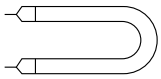
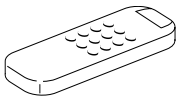
(2) Subjects, measuring instruments and jigs needed for camera section service and adjustments

• Gray scale chart • Color bar chart • Oscilloscope • Digital voltmeter • Halogen lamp: 2 pcs. • Vector scope	• Frequency counter • Illumination meter • Color temperature meter • Color temperature conversion filter HOYA "LB-165" • Color video monitor	• Video output cable • AC adapter • Extension cables • Remote control unit for servicing

9-2-2. List of camera jigs and tools

Configuration

<Note: The entries of list> 1. Name 2. Part No. 3. Code

 1. Gray scale chart (390 x 520 mm) 2. JiGCHART-1 3. CP	 1. Color bar chart (240 x 320 mm) 2. JiGCHART-4 3. DA	 1. Illumination meter (0 to 3000 lux) 2. JiGMETER-1 3. CT	 1. Color temperature meter (1600 to 400000 degrees K) 2. JiGMETER-2 3. EL
 1. Color temperature conversion filter (3200 degrees K ⇒ 6800 degrees K) 2. JiGHOYA-LB165 3. BN	 1. PC plate connector drawer 2. JiGTH-SS10 3. AW	 1. Remote control until for servicing 2. RRMCG0033TASA 3. BT	

9-2-3. Adjusting the camera unit

(1) Preparations for adjustments and items to be checked

1) Set up the light box so that the entire pattern is evenly lit. Set the color temperature to 3200°K.
2) Use test patterns that are not dirty nor discoloured.
3) If the electrical circuitry gets in trouble, be sure to pinpoint the trouble spot with a measuring instrument and repair or replace the defective part.

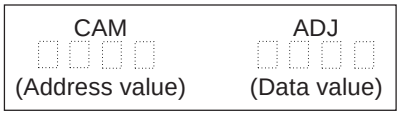
(2) Remote control for servicing RRMCG0033TASA

To adjust the camera section of this machine, the remote control for servicing (RRMCG0033TASA) is used. The adjustment is made in such a manner that the remote control writes necessary data by way of the microprocessor to the specific addresses on the E^2PROM (IC702 and on the lens unit).

1) To adjust the camera:
Press the "CONTINUE" key first and then the "CAM ADJ" key.
This will show

on the LCD screen, thereby having the camera unit ready for the adjustments.

2) Descriptions of the displays



(Indicates the camera adjustment mode.)

* The address values for this machine range from 0000 to 09FF.
* The data include byte data (the last two digits are effective) and 2-byte data (the last three digits are effective).

3) Descriptions of the remote control keys

"FF" key: Increases the address and data values.
"REW" key: Decreases the address and data values.
"PLAY" key: Specifies addresses and calls the data.
This key also fixes the data values.
"STOP" key: Clears the data to enable the selection of address.

4) Operation flow

→ FF or REW → PLAY → FF or REW → PLAY → STOP →

Address is selected and specified, with the data called. Then the called data are selected and fixed. The operation flows in this sequence.

5) When the adjustment is complete:
Press the "CONTINUE" key to let the "CAM ADJ" display disappear from the screen.
Note: Before terminating the adjustments, make sure that the adjustment mode is neither the auto-focus function adjustment mode nor the camera signal system adjustment mode (these modes are mentioned later).

- Camera unit adjustment modes
The camera unit is adjusted in two types of modes: the auto-focus function adjustment mode and the camera signal system adjustment mode.

Note: Each E^2PROM contains the adjustment item data as shown below. If it is changed, data rewriting and confirmation of latest data must be performed.
1) E^2PROM on lens unit of camera head section
Lens data
2) E^2PROM(IC702) on main unit
Signal system adjustment data

(3) Auto-focus function adjustment mode
- The camera unit uses a microprocessor-controlled auto-focus zoom lens.
The auto-focus circuit incorporated in this unit is designed to execute the image processing where the focusing action is done by taking advantage of the fact that the high-frequency components in the image signals increase as the focus intensifies. Moreover, to achieve high magnifying power with a small lens, the camera unit incorporates the inner focus system in which the focus is shifted by moving the master lens (rear lens) back and forth. This inner focus system is a full-range focus type by which the focus can be shifted from approximately 10 mm to the infinity. It should be noted, however, that since the closest subject distance at the telephoto end is fixed at 1.5 m, subjects in a closer range than 1.5 m at the telephoto end will be out of focus. For this reason, the unit is designed so the zoom control is automatically shifted to the wide angle side until the position is found where the subject can be focused on.

In the auto-focusing system of this until, the following constitute the important factors:
• Master lens position detection data
• Iris position detection data
• Zoom lens position detection data
These detection data are handled and stored by the microprocessor, lens by lens, into the E^2PROM.
Therefore, in the following cases, the auto-focus function adjustment is required:
• When the lens has been replaced
• When the CCD has been replaced
• When the E^2PROM (on the lens unit) has been replaced

1) Shifting to the auto-focus function adjustment mode
Set the data for the address "09FE" to "□□01".
⇩
This makes the screen fade temporarily in white and shifts to the auto-focus function adjustment mode.

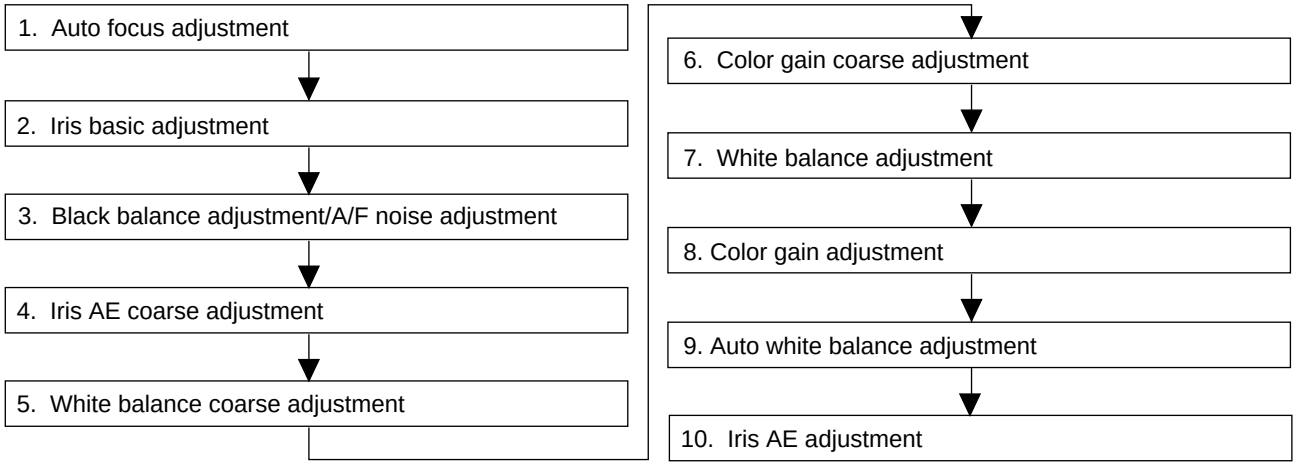
* When this adjustment mode has been shifted to, make the adjustment according to (5) Camera unit adjustment procedure.
* In this adjustment mode, the lens can not be operated.

2) Shifting to the normal operation mode
Set the data for the address "09FE" to "□□FF".
⇩
This makes the screen fade temporarily in white and shifts to the normal operation mode.
⇩
Press the "CONTINUE" key, and the "CAM ADJ" display goes out of the screen, enabling the normal operation.

(4) Camera signal system adjustment mode
In the camera signal system adjustment mode, the automatic white balance is disabled to allow for the adjustment of the camera unit. At this time, the white balance mode is fixed at the INDOORS mode and the focus mode is switched to the manual focus mode.
1) Shifting to the camera signal system adjustment mode
Set the data for the address "0000" to "□□00".
⇩
This shifts the camera signal system adjustment mode.
* When this adjustment mode has been shifted to, make the adjustment according to (5) Camera unit adjustment procedure.

2) Shifting to the normal operation mode
Set the data for the address "0000" to "□□FF".
⇩
This shifts the mode to the normal operation mode.
⇩
Press the "CONTINUE" key, and the "CAM ADJ" display goes out of the screen, enabling the normal operation.

(5) Camera unit adjustment procedure


1. Auto focus adjustment
2. Iris basic adjustment
3. Black balance adjustment/A/F noise adjustment
4. Iris AE coarse adjustment
5. White balance coarse adjustment
6. Color gain coarse adjustment
7. White balance adjustment
8. Color gain adjustment
9. Auto white balance adjustment
10. Iris AE adjustment

* The above 1. Auto-focus function adjustment and 2. Iris basic adjustment are performed in the auto-focus function adjustment mode, whereas the other adjustments are made in the camera signal system adjustment mode.
* After completing the auto-focus adjustment mode, set the camera signal system adjustment mode. (Take care that the adjustment mode transfer address is different.)

9-2-4. Adjustment procedures

Item	Adjustment method

(1) Auto-focus adjustment

Set the unit to the auto-focus function adjustment mode and write data to the address "09FD" one after another. This executed the adjustments automatically. The items to be adjusted are as listed below. Every time an adjustment is made properly, the data "FF" is written to the address. After each adjustment, make sure that the adjustment has been made properly, and then go on to the next adjustment item.

Address	Data	Adjustment item
09FD	000C	MR censor adjustment
	0012	WIDE end adjustment
	0008	TELE end focus ∞ position adjustment
	0006	WIDE end focus ∞ position adjustment

Note 1: To adjustment of ∞ position is executed by actually picking up the image of subject. For this adjustment use the subject with clear profile.
Especially, if the adjustment of TELE end focus ∞ position is made without picking up the image of remote subject, adjustment failure may occur.
Adjustment of WIDE end focus ∞ position: 3 m or more
Adjustment of TELE end focus ∞ position: 50 m or more

Note 2: In case of ∞ position adjustment the field depth is important to ensure the adjustment accuracy. If the field depth is high, the focus becomes too stable , which may cause incorrect adjustment of ∞ position. Therefore the adjustment must be made with low field depth (with iris opened).

The iris can be opened with the high-speed shutter.
1. It returns to the normal operation mode.
2. In the normal operation mode, set the high-speed shutter mode until the iris is opened. (Refer to the operation manual.)
3. Display “CAM ADJ” with the remote control for service.
4. It shifts to the auto-focus adjustment mode.
5. Perform the ∞ position adjustment.
6. After completing the ∞ position adjustment, return the high-speed shutter mode to the normal mode.

(2) Iris basic adjustment

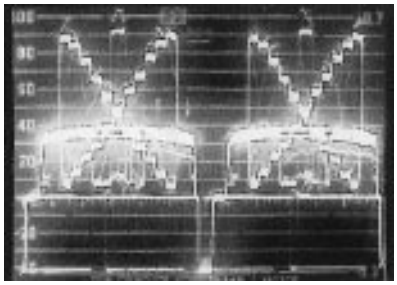
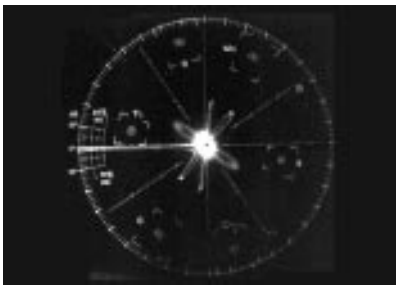
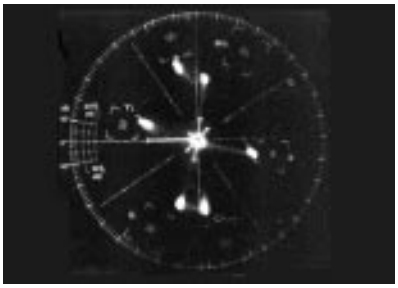
This is for adjusting the operating point of the hole element installed in the iris meter of the lens.
The adjustments are executed automatically by writing the data to the address "09FD" one after another in the auto-focus adjustment mode.The items to be adjusted are as listed below. Every time an adjustment is made properly, the data "00FF" is written to the address.

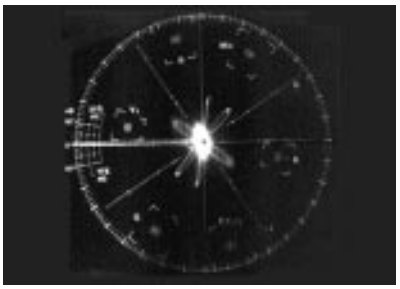
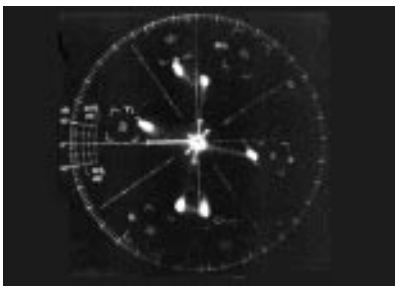
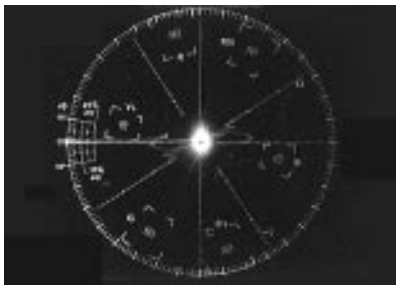
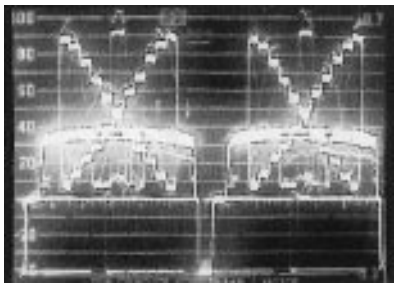
Address	Data	Adjustment item
09FD	0009	Hall offset adjustment
	000A	Iris offset adjustment
	000B	Iris close adjustment

* After completion of 1. Auto-focus adjustment, 2. Iris basic adjustment once restore the regular operation mode. Data "090F" is written in the address "0003".

(3) Black balance adjustment/A/F noise adjustment

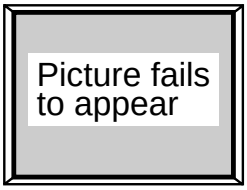
1) In the camera signal system adjustment mode (write the data " 00" to the address "0000"), set the unit to the adjustment mode.
2) Prior to the adjustment, initialize the data for the addresses "0200", "0202", "0204", "0206", "0208", "020A".
Write "FF" to all of these address.
3) Write the data " 01" to the address "0001" This starts the adjustment automatically.
When the adjustment is completed properly, the data "00FF" is written automatically.

Item	Adjustment method
(4) Iris AE coarse adjustment • Measurement terminal: S terminal luminance signal output (75 Ω termination) • Address: "0002" AE_CVT • Measuring instrument: Oscilloscope (horizontal sync) • Object: Grey scale • Data variation width: "0000" to "00FE"	(1) Video output is observed with the oscilloscope in the grey scale standard record state, the data of address "0002" is rewritten, and the luminance signal level is adjusted white to 720 ± 10mVp-p.  100mV/div
(5) White balance coarse adjustment • Measurement terminal: EE output • Address: "0050" CGAIN_KR_W "0052" CGAIN_KB_W • Measuring instrument: Vector scope • Object: Grey scale • Data variation width: "0000" to "03FF"	(1) Indication on the vector scope is observed in the grey scale standard record state, data of address "0050" and "0052" are rewritten, and an adjustment is made so that the luminous dot is located in the position of burst ratio: R-Y 0 ± 5% B-Y 0 ± 5% 
(6) Color gain coarse adjustment • Measurement terminal: EE output • Address: "02DE" CGIN RYG "02E0" CGIN BYG "02DB" CMAT RYG "02D9" CMAT BYG • Measuring instrument: Vector scope • Object: Color bar chart • Data variation width: "0000" to "00FF"	(1) The color bar chart is imaged, and the picture angle is adjusted so as to get white level 700 mV. Indication on the vector scope is observed, the data of address "02DE", "02E0", "02DB" and "02D9" are rewritten, and setting is made so that the red and blue luminous dots are located in the following positions. (The gain of vector scope must be set on 75% amplitude point on the B-Y axis.)  Adjustment address Red amplitude 2.10 ± 0.1 time (burst ratio) : "02DE" Blue amplitude 2.10 ± 0.1 time (burst ratio) : "02E0" Red phase 104° ± 2° : "02DB" Blue phase 348° ± 2° : "02D9"

Item	Adjustment method
(7) White balance adjustment • Measurement terminal: EE output • Address: "0050" INDOOR_W/B R "0052" INDOOR_W/B R • Measuring instrument: Vector scope • Object: Grey scale • Data variation width: "0000" to "03FF"	(1) White balance adjustment is performed repeatedly. 
(8) Color gain adjustment • Measurement terminal: EE output • Address: "02DE" CGIN RYG "02E0" CGIN BYG "02DB" CMAT RYG "02D9" CMAT BYG • Measuring instrument: Vector scope • Object: Waveform monitor color bar chart • Data variation width: "0000" to "00FF"	(1) Color gain adjustment is performed repeatedly.  Adjustment address Red amplitude 2.10 ± 0.05 time (burst ratio) : "02DE" Blue amplitude 2.10 ± 0.05 time (burst ratio) : "02E0" Red phase 104° ± 1° : "02DB" Blue phase 348° ± 2° : "02D9"
(9) Auto white balance adjustment • Measurement terminal: EE output • Address: "000C" OUTDOOR R "000E" OURDOOR B • Measuring instrument: Vector scope • Object: Grey scale • Data variation width: "0000" to "03FF"	(1) The color temperature conversion filter (LB165) is mounted in front of lens. (2) Indication of vector scope is observed in the grey scale standard record state, and an adjustment is made so that the luminous dots are located in the following positions: R-Y 0 ± 5% (burst ratio) B-Y 0 ± 5% (burst ratio) 
(10) Iris AE adjustment • Measurement terminal: S terminal luminance signal output (75 Ω termination) • Address: "0002" AE_CVT • Measuring instrument: Oscilloscope (horizontal sync) • Object: Grey scale • Data variation width: "0000" to "00FE"	(1) Set the unit to the normal operation mode (write the data "□□FF" to the address "0000"). (2) Video output is observed with the oscilloscope in the grey scale standard record state, the data of address "0002" is rewritten, and the luminance signal level is adjusted white to 660 ± 10mVp-p, gray of the background 320 ± 10mVp-p.  100mV/div

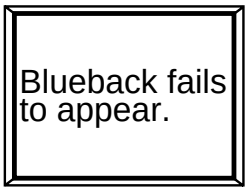
10. USEFUL TIPS (PROBLEMS DIFFER FROM THOSE FOUND ON VHS OR 8MM DECKS BECAUSE THE SIGNALS ARE DIGITALLY PROCESSED.)

Camera (EE mode)



Major circuits to be checked
- CCD
- Camera circuits (CDS, ADC, CAM ENGINE)
- CAMERA/SYSTEM MiCON (IC701)
- VIDEO I/O (IC1401)
- VIO ENGINE (IC4401)

VCR (EE mode)

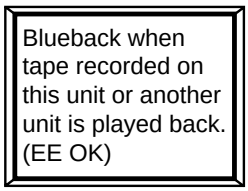


Major circuits to be checked
- Mechanical control Micon (IC7701)
- CAMERA/SYSTEM MiCON (IC701)
- CAM ENGINE (IC201)
- REC/PB ENGINE (IC452)

Camera (REC mode)
VCR (PB mode)

Major circuits to be checked
- CAM ENGINE (IC201)
- REC/PB ENGINE (IC452)

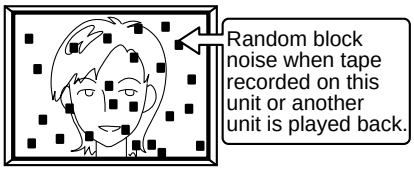
Camera (REC mode)
VCR (PB mode)



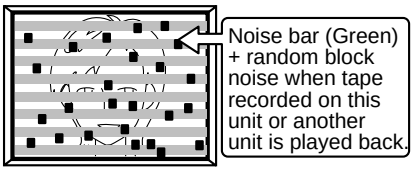
Major circuits to be checked
- EQ/PLL (IC3401)
- Head amplifier (IC301)

* Dirty or defective video head

Camera (REC mode)
VCR (PB mode)



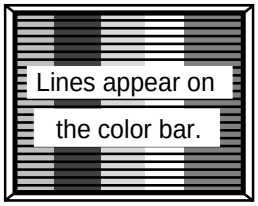
or



Major circuits to be checked
- EQ/PLL (IC3401)
- Head amplifier (IC301)

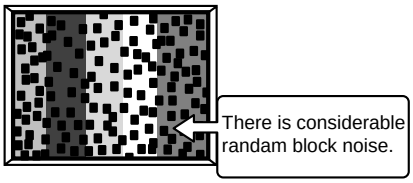
* Dirty or defective video head

VCR (PB mode) + color bar



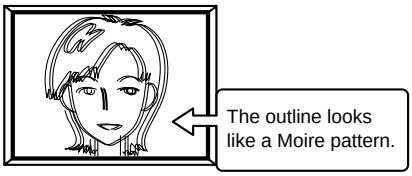
Major circuits to be checked
- CAM ENGINE (IC201)

VCR (PB mode) + color bar



Major circuits to be checked
- Adjustment of the electromagnetic conversion circuit system.

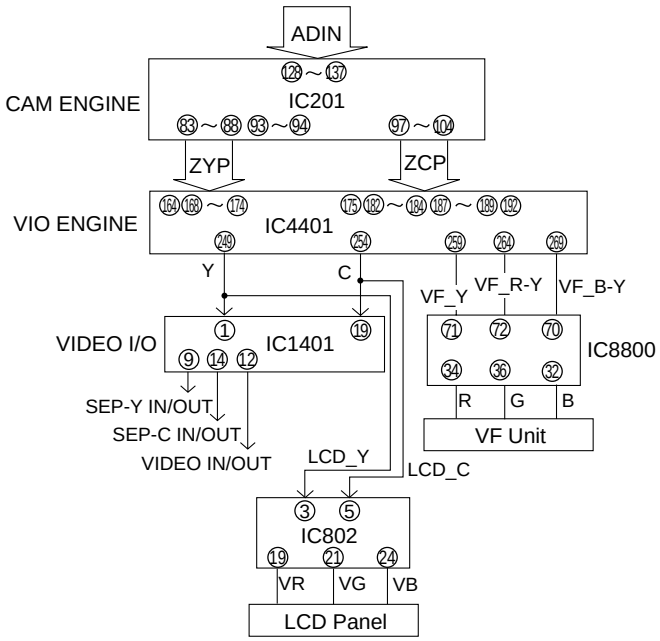
Camera (EE mode)



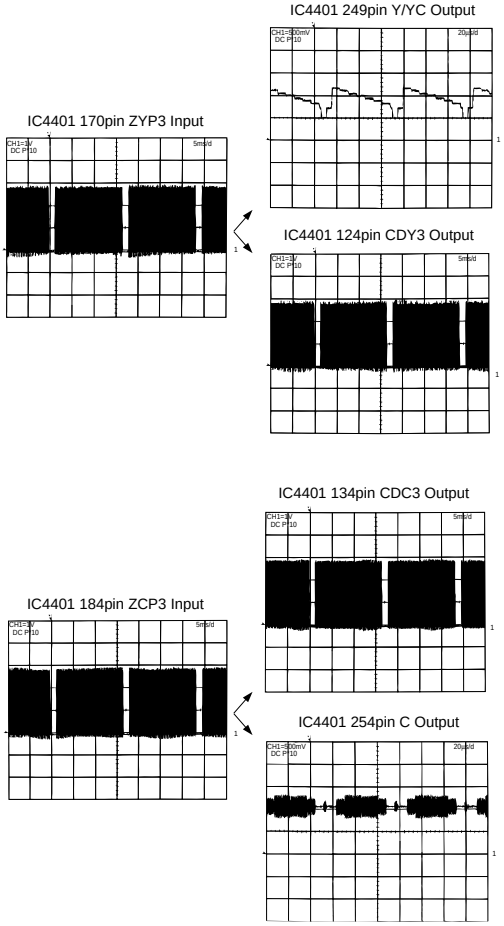
Major circuits to be checked
- Y data between CAM ENGINE (IC201) and VIO ENGINE (IC4401) is missing.

11. SIGNAL FLOW DIAGRAMS

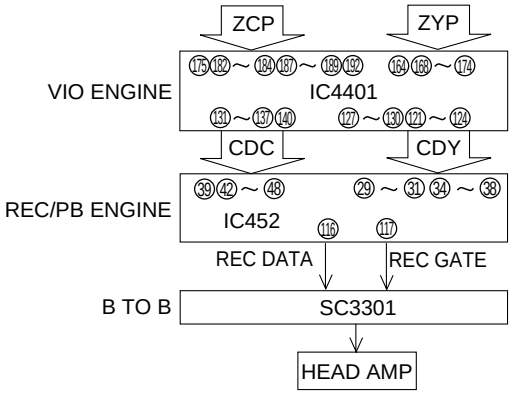
11-1. EE MODE FLOW (VIDEO)



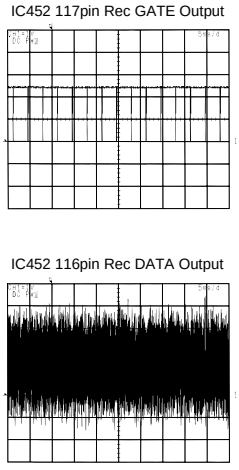
WAVEFORM DIAGRAM (DURING COLOR BAR RECORDING)


IC4401 249pin Y/YC Output
IC4401 170pin ZYP3 Input
IC4401 124pin CDY3 Output
IC4401 134pin CDC3 Output
IC4401 184pin ZCP3 Input
IC4401 254pin C Output

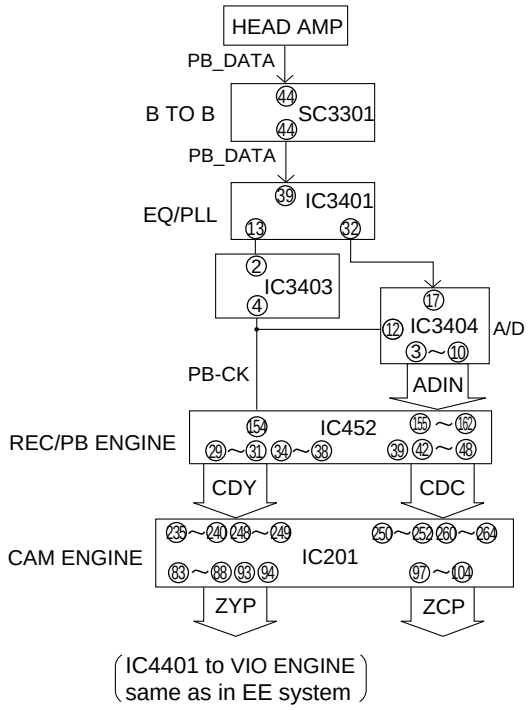
11-2. FLOW IN REC MODE (VIDEO)



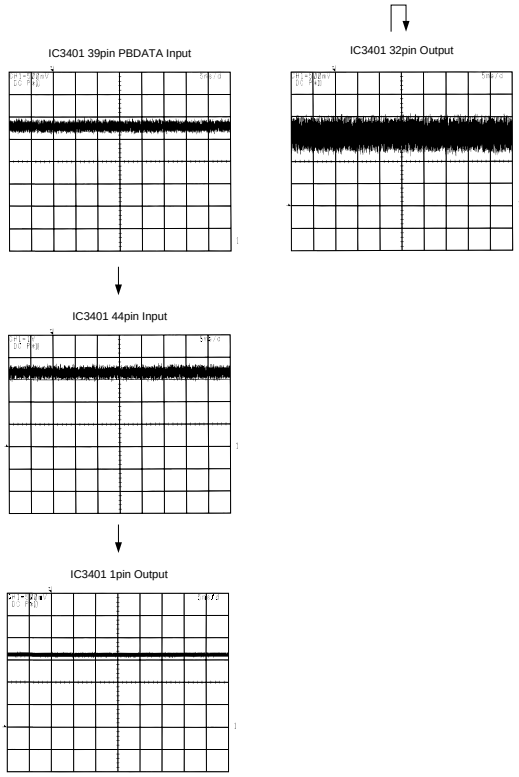
WAVEFORM DIAGRAM (DURING COLOR BAR RECORDING)



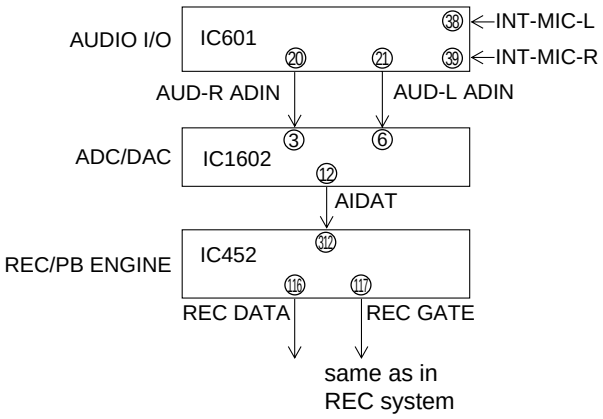
11-3. FLOW IN PB MODE (VIDEO)



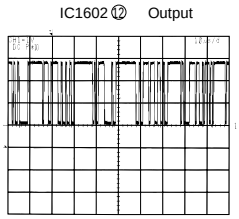
WAVEFORM DIAGRAM (DURING COLOR BAR PLAYBACK)



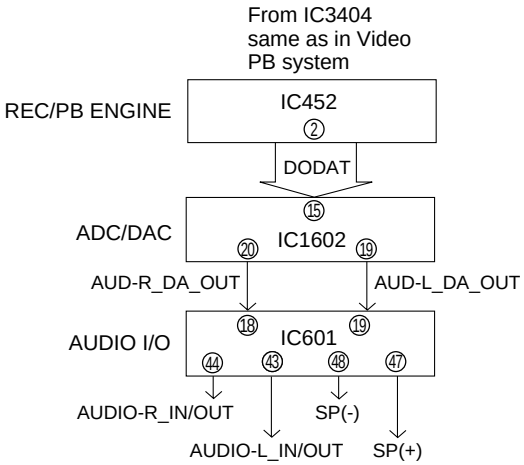
11-4. FLOW IN REC MODE (AUDIO)



WAVEFORM DIAGRAM (1.6 kHz SINE WAVE)

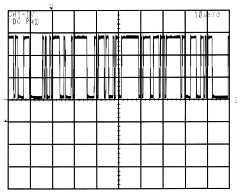


11-5. FLOW IN PB MODE (AUDIO)



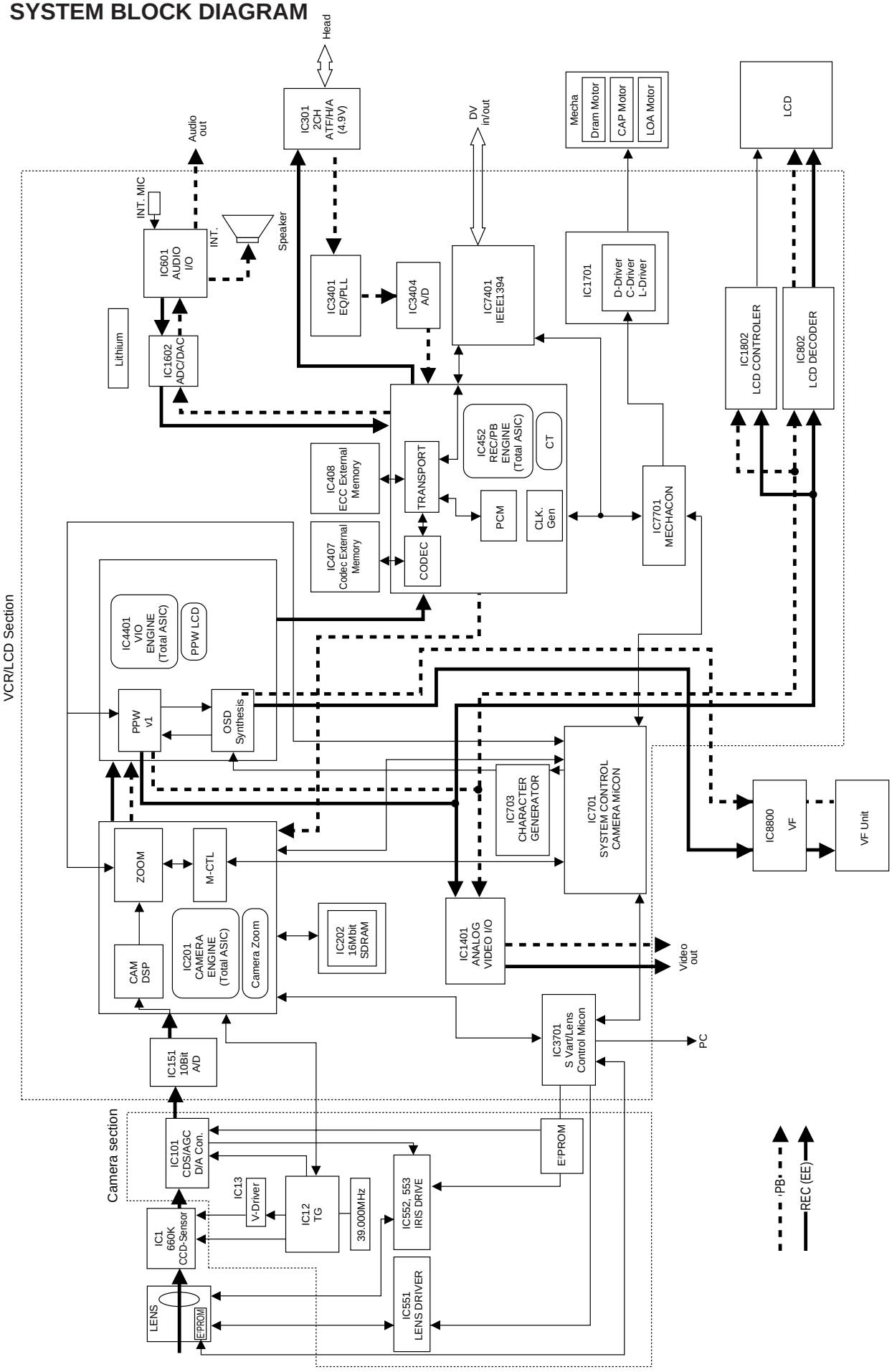
WAVEFORM DIAGRAM (1.6 kHz SINE WAVE)

IC1602 ⑮ DODAT Input

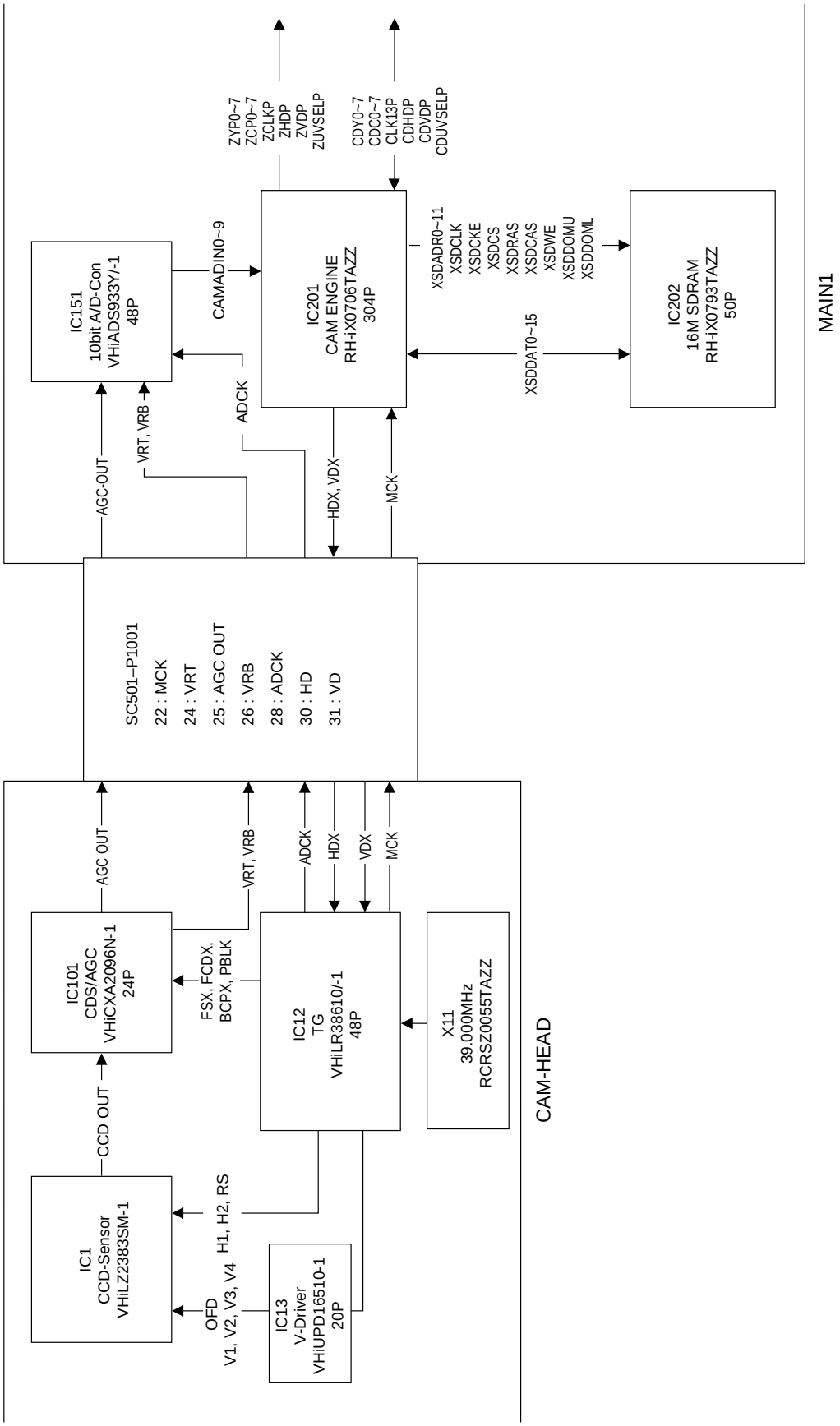


12. BLOCK DIAGRAMS

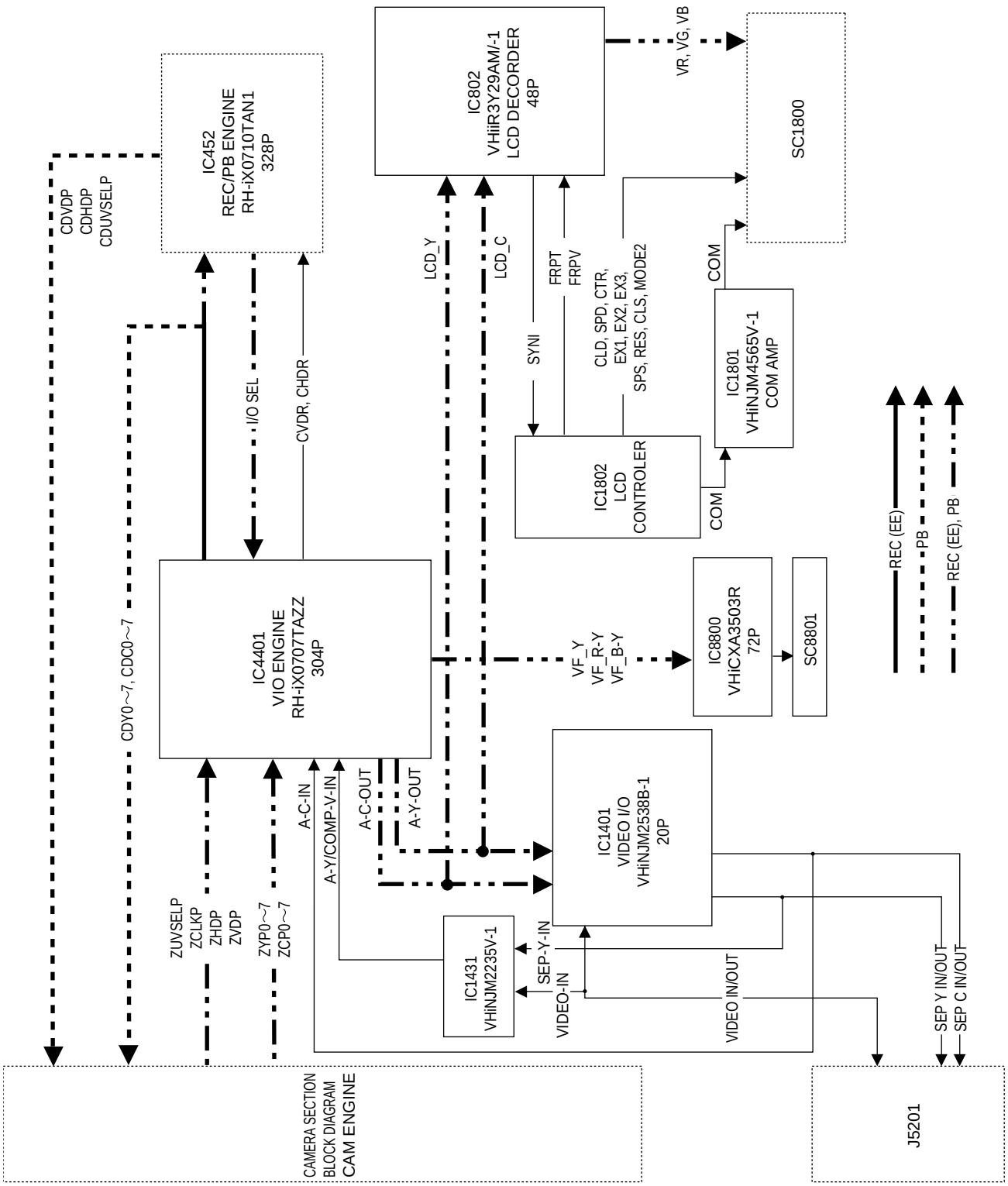
12-1. SYSTEM BLOCK DIAGRAM



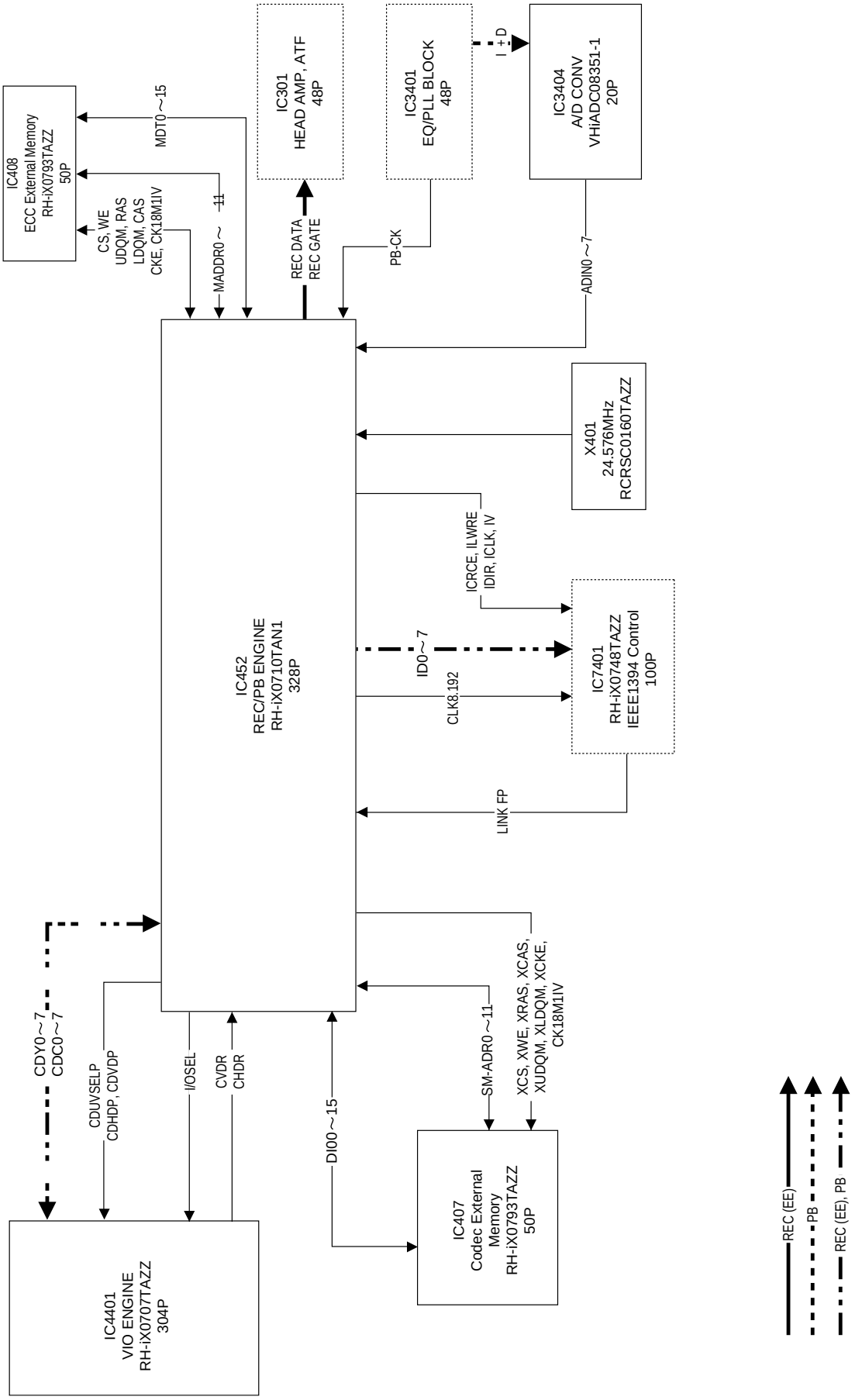
12-2. CAMERA SECTION BLOCK DIAGRAM



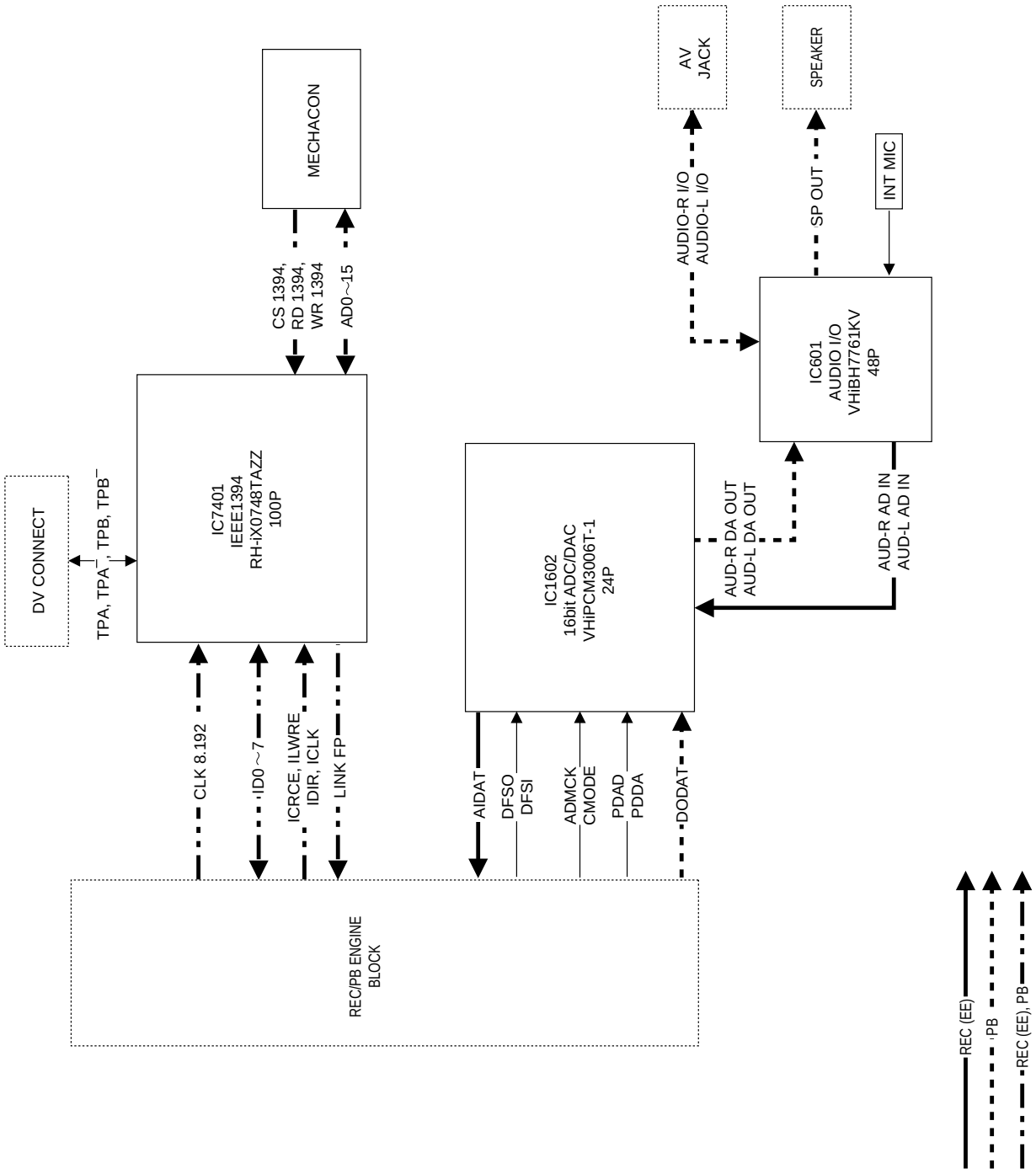
12-3. VIO ENGINE SECTION BLOCK DIAGRAM



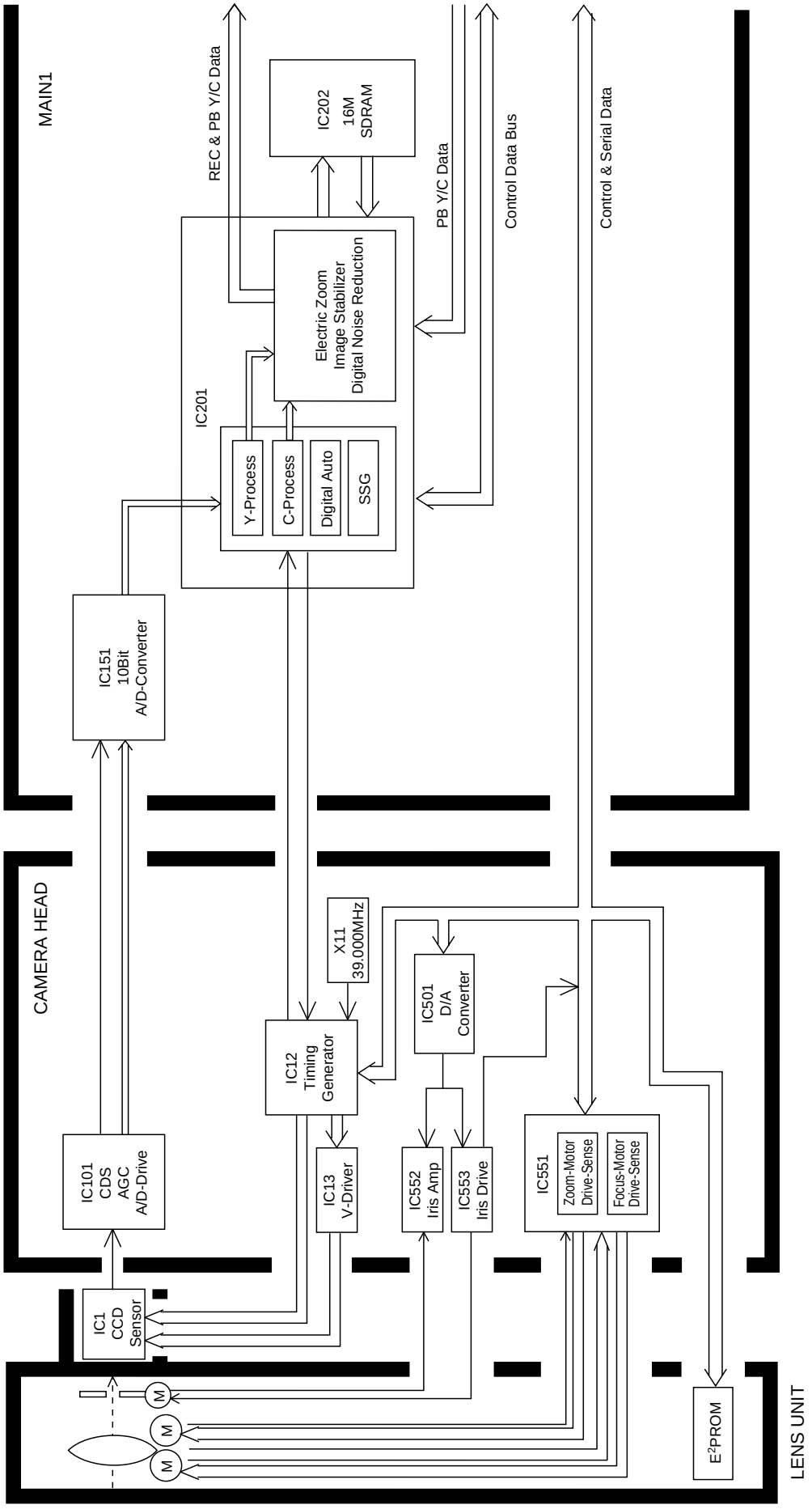
12-4. REC/PB SECTION SECTION BLOCK DIAGRAM



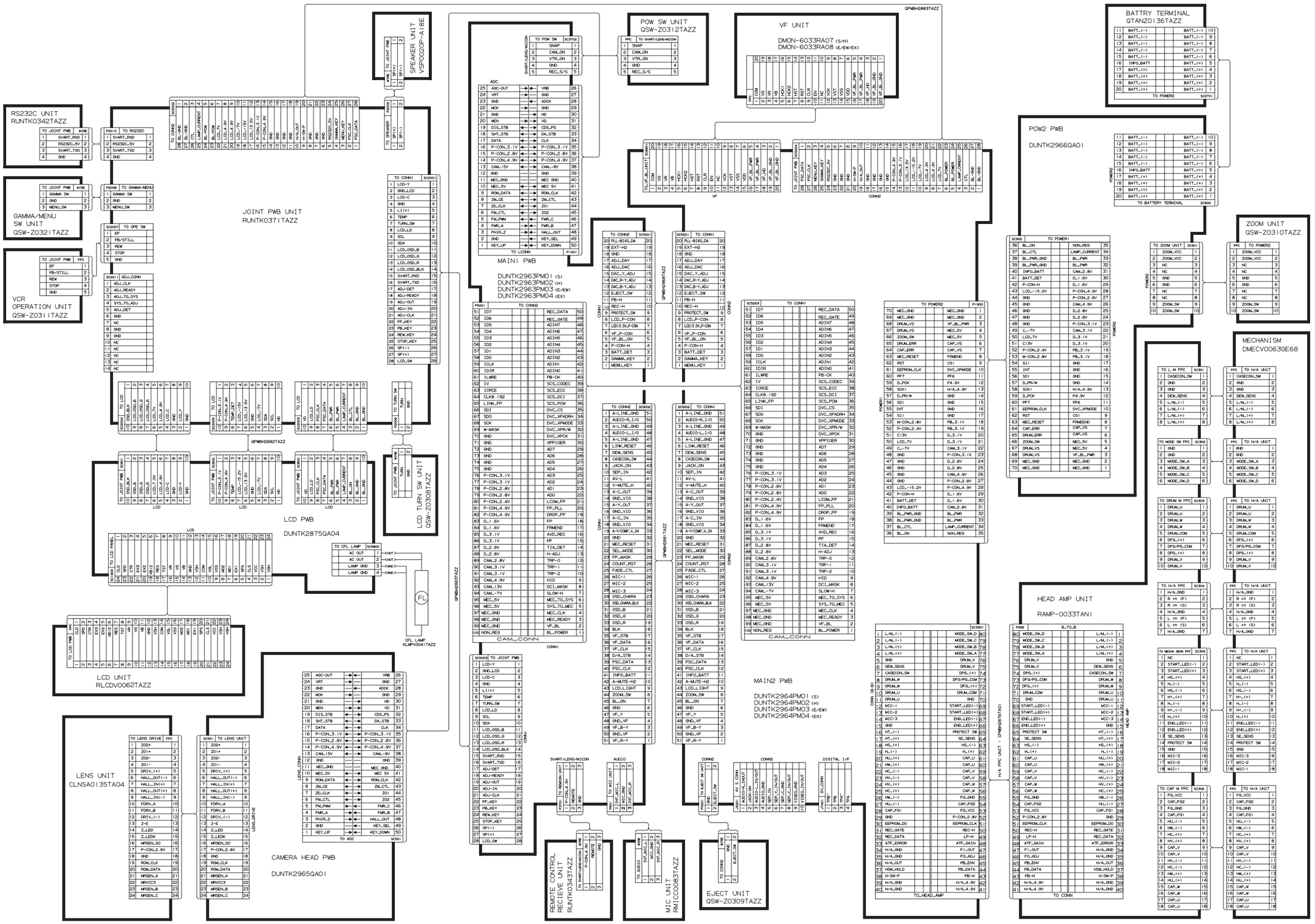
12-5. AUDIO/DIGITAL OUTPUT SECTION BLOCK DIAGRAM



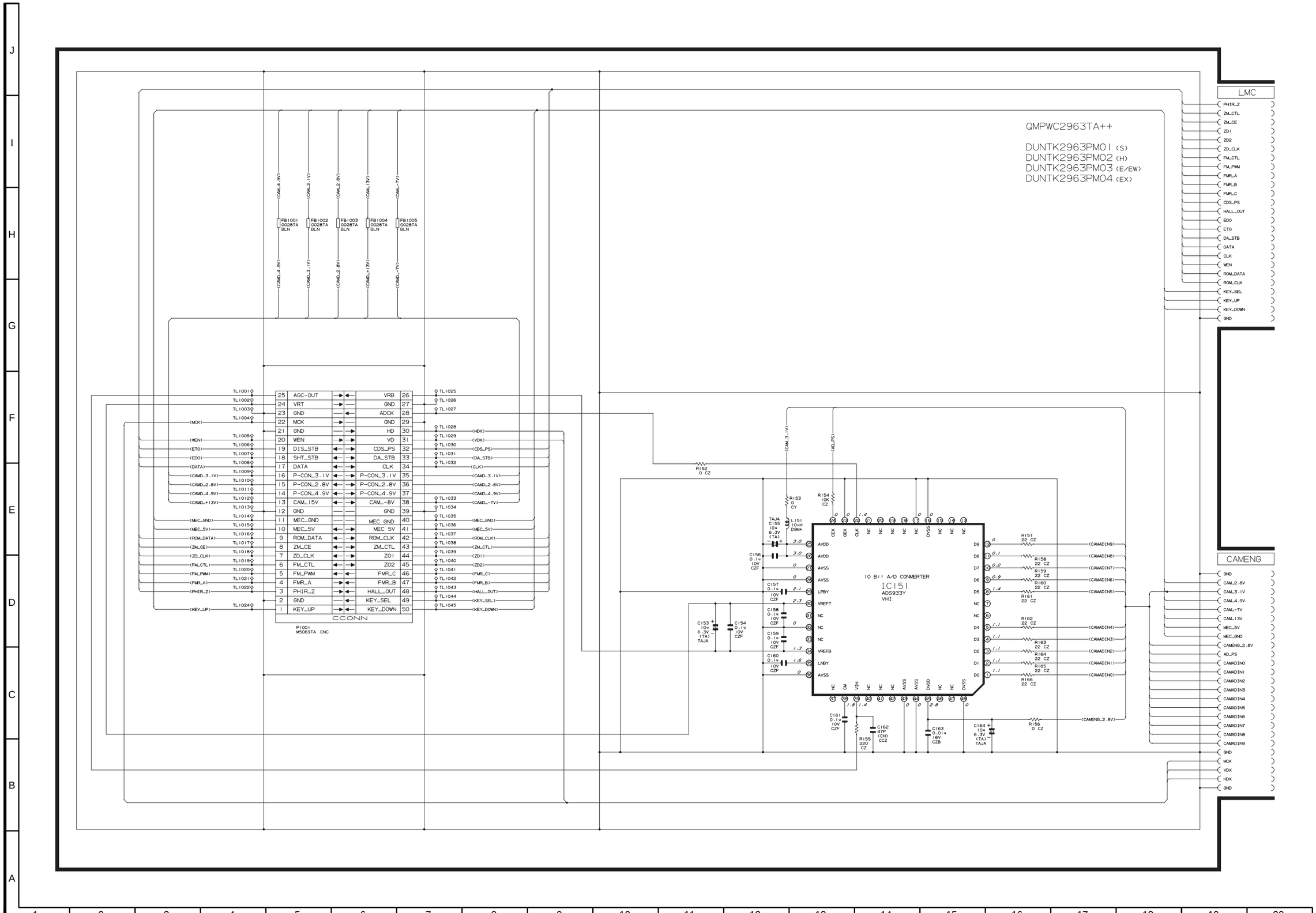
12-6. CAMERA CIRCUIT BLOCK DIAGRAM



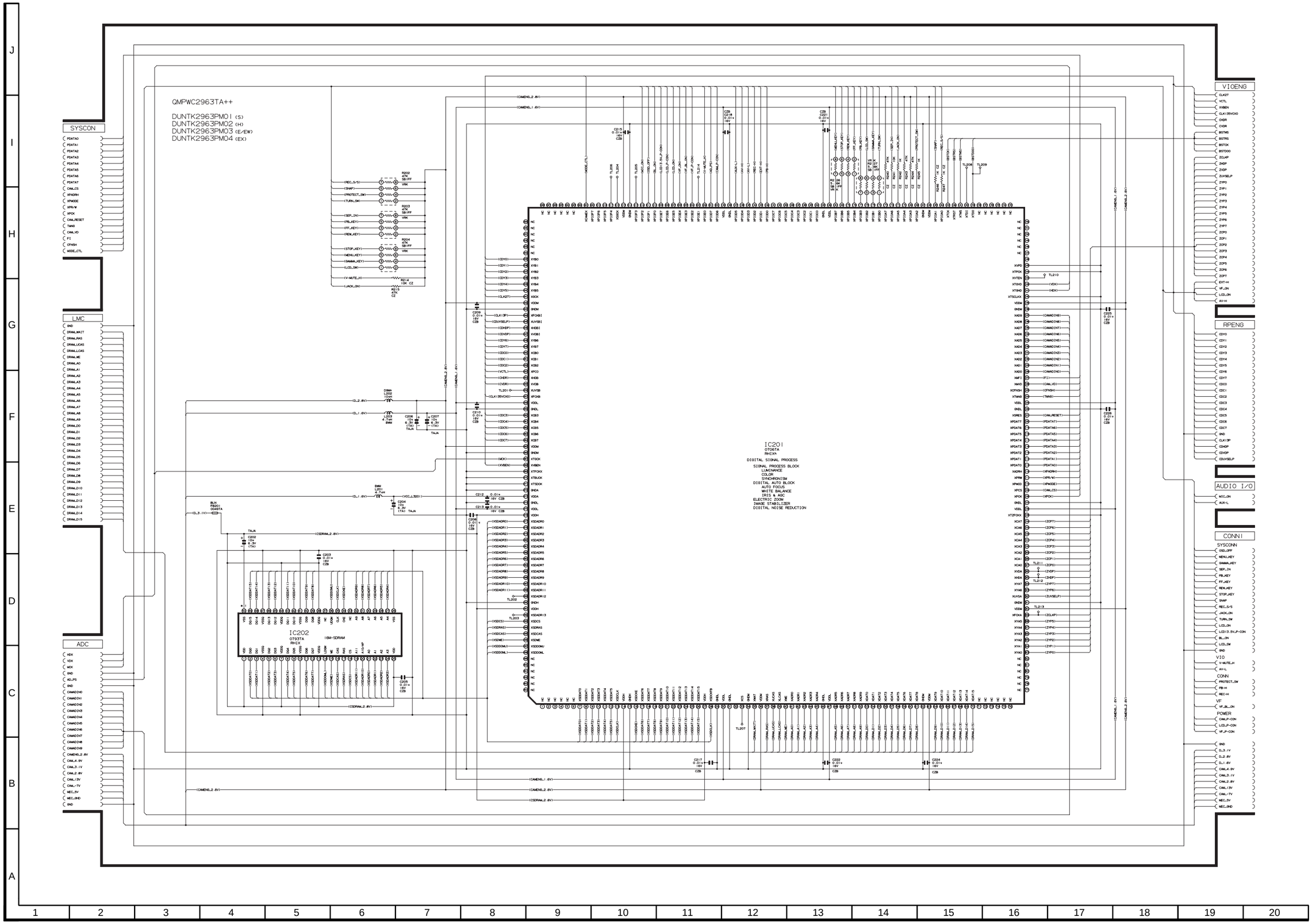
13. SCHEMATIC DIAGRAMS 13-1. OVERALL SCHEMATIC DIAGRAM



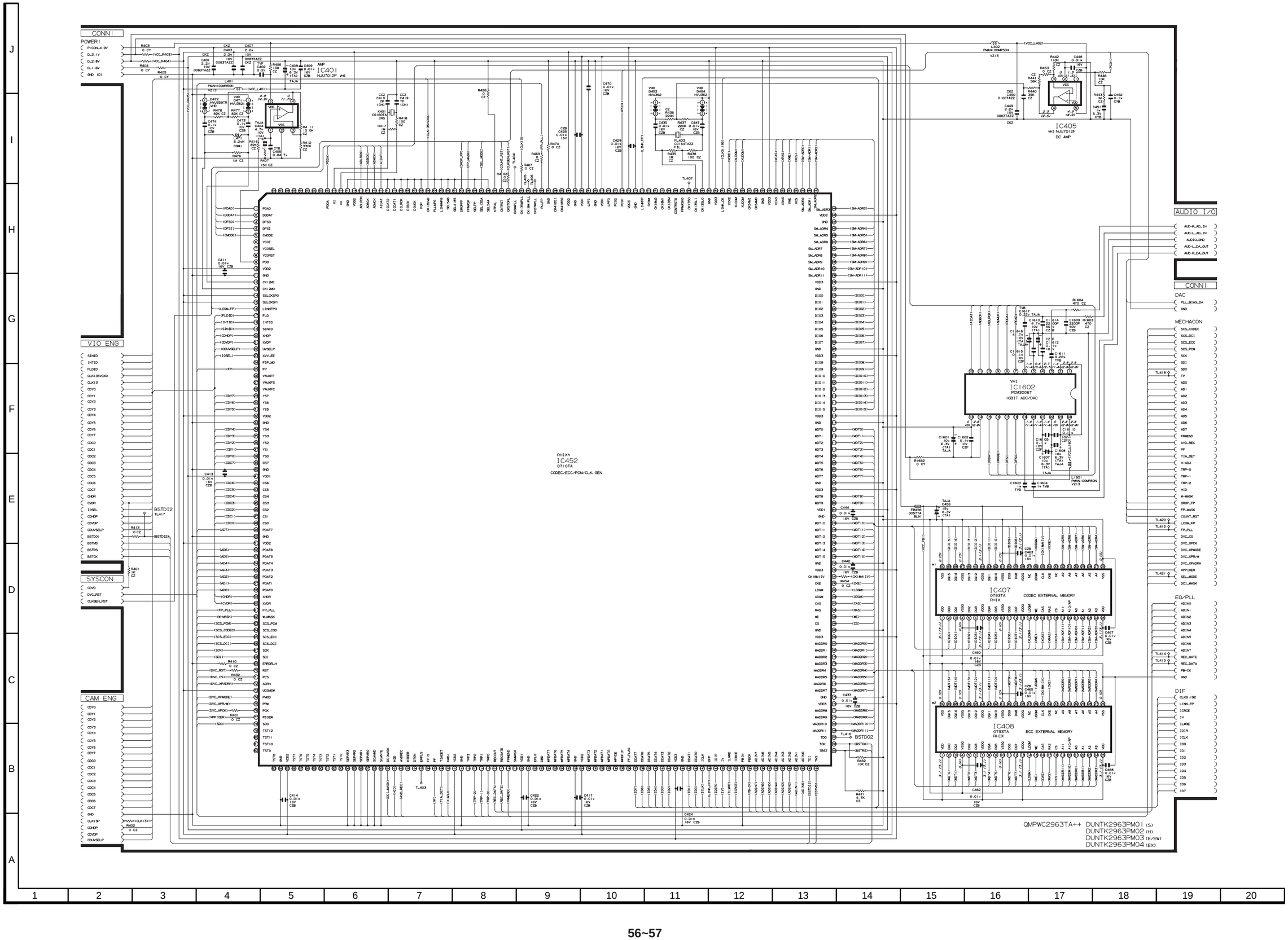
13-2. ADC SCHEMATIC DIAGRAM



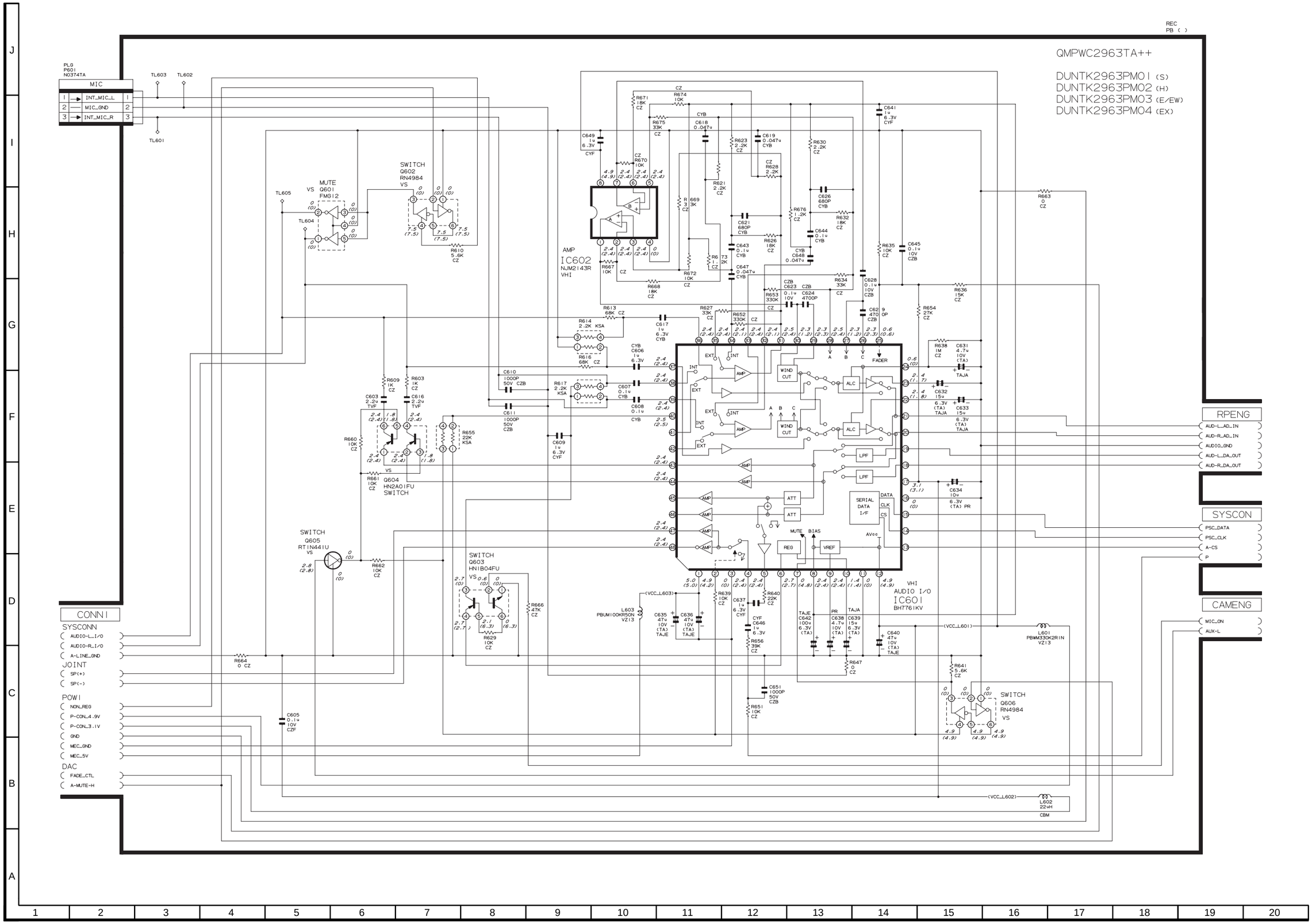
13-3. CAMERA ENGINE SCHEMATIC DIAGRAM



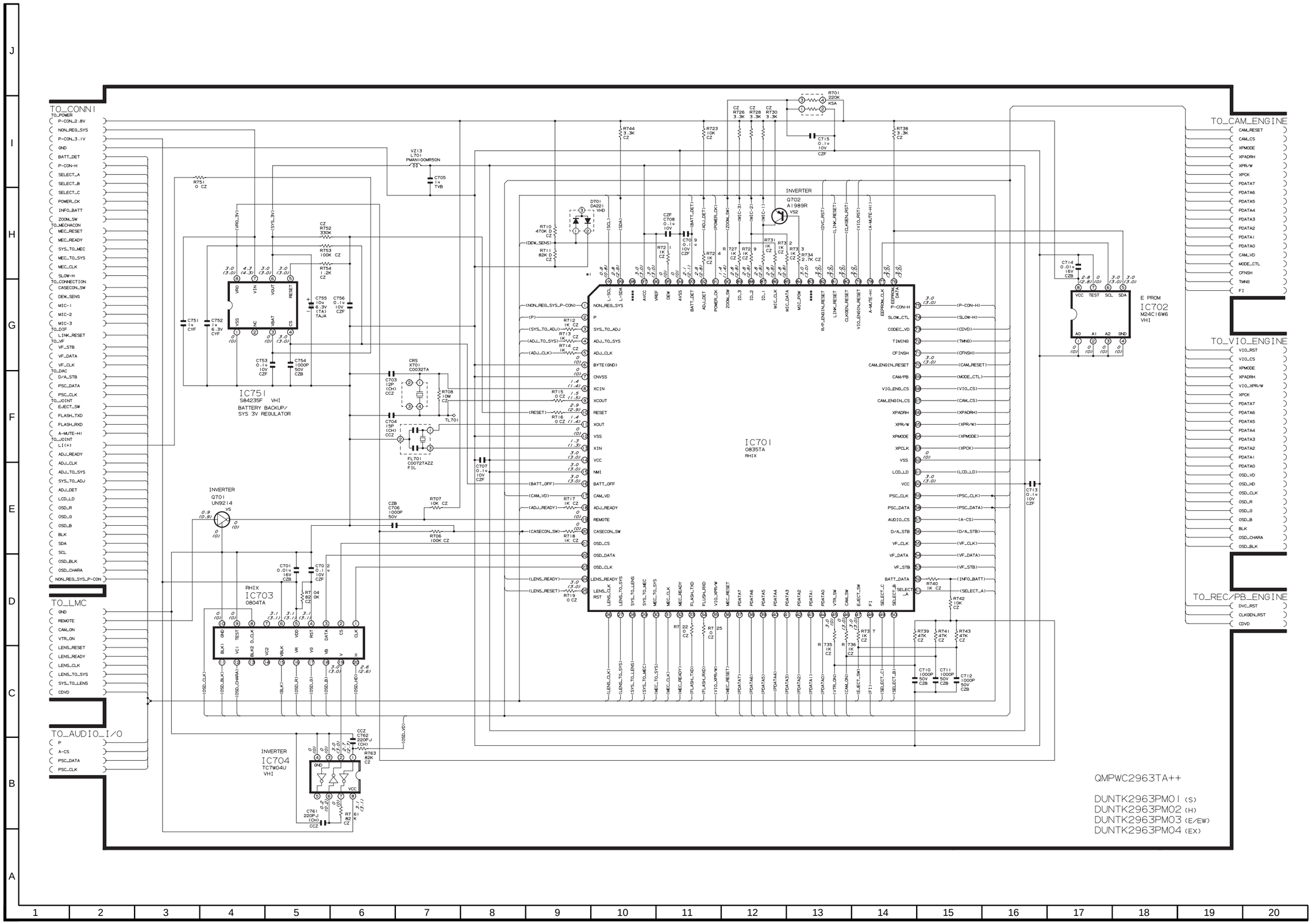
13-4. REC/PB ENGINE SCHEMATIC DIAGRAM



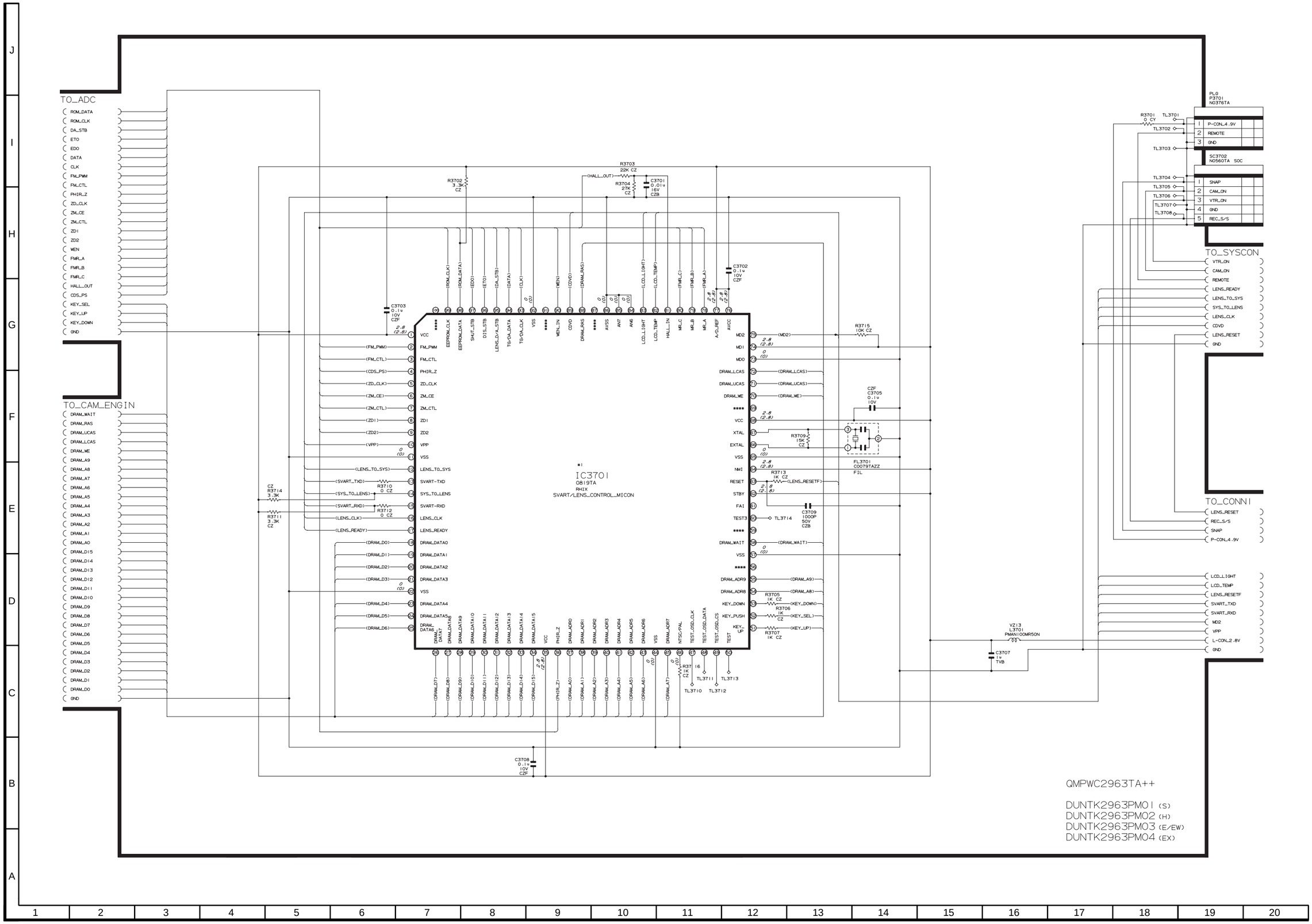
13-5. AUDIO I/O SCHEMATIC DIAGRAM



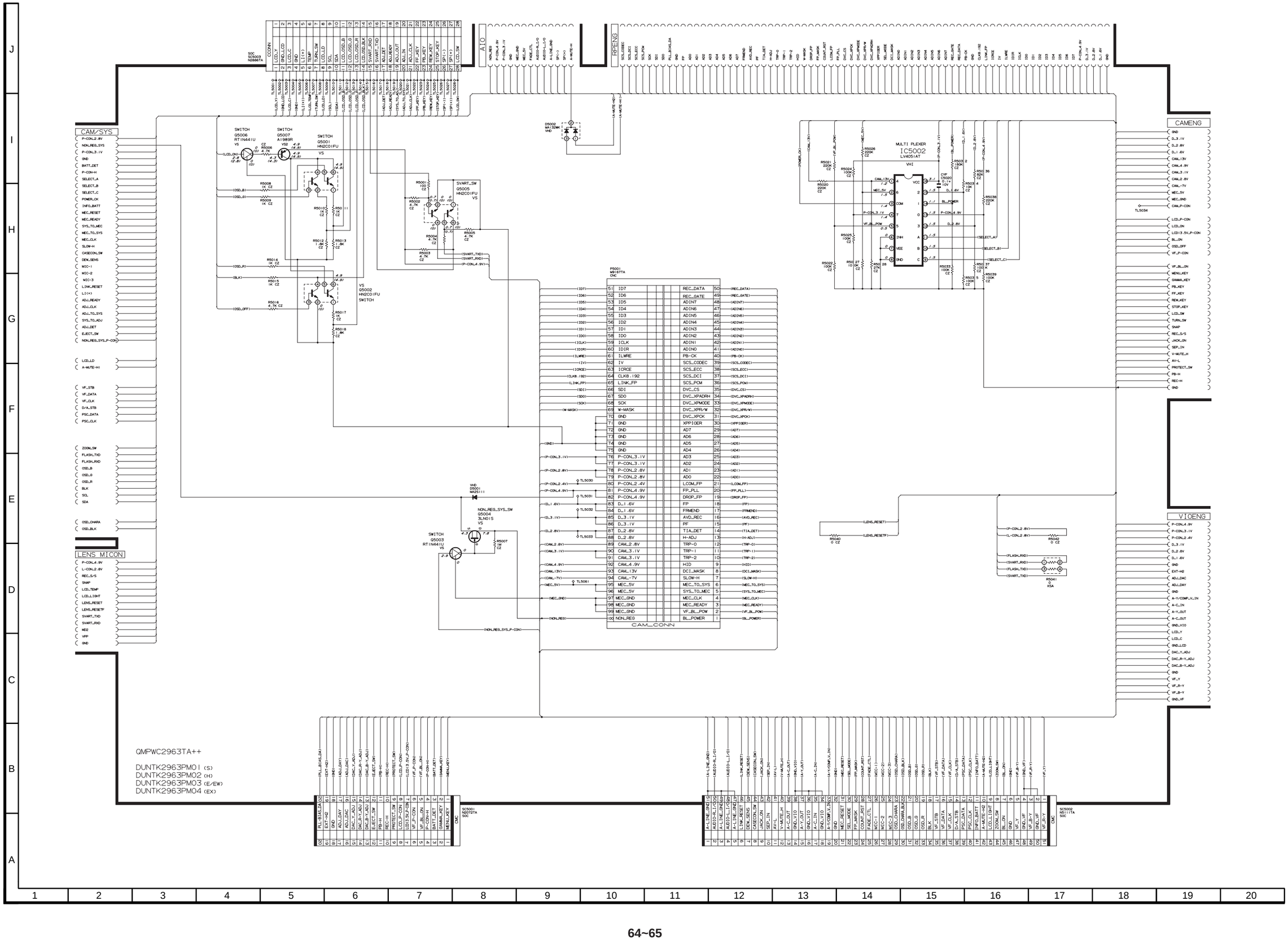
13-6. CAM/SYS MICON SCHEMATIC DIAGRAM



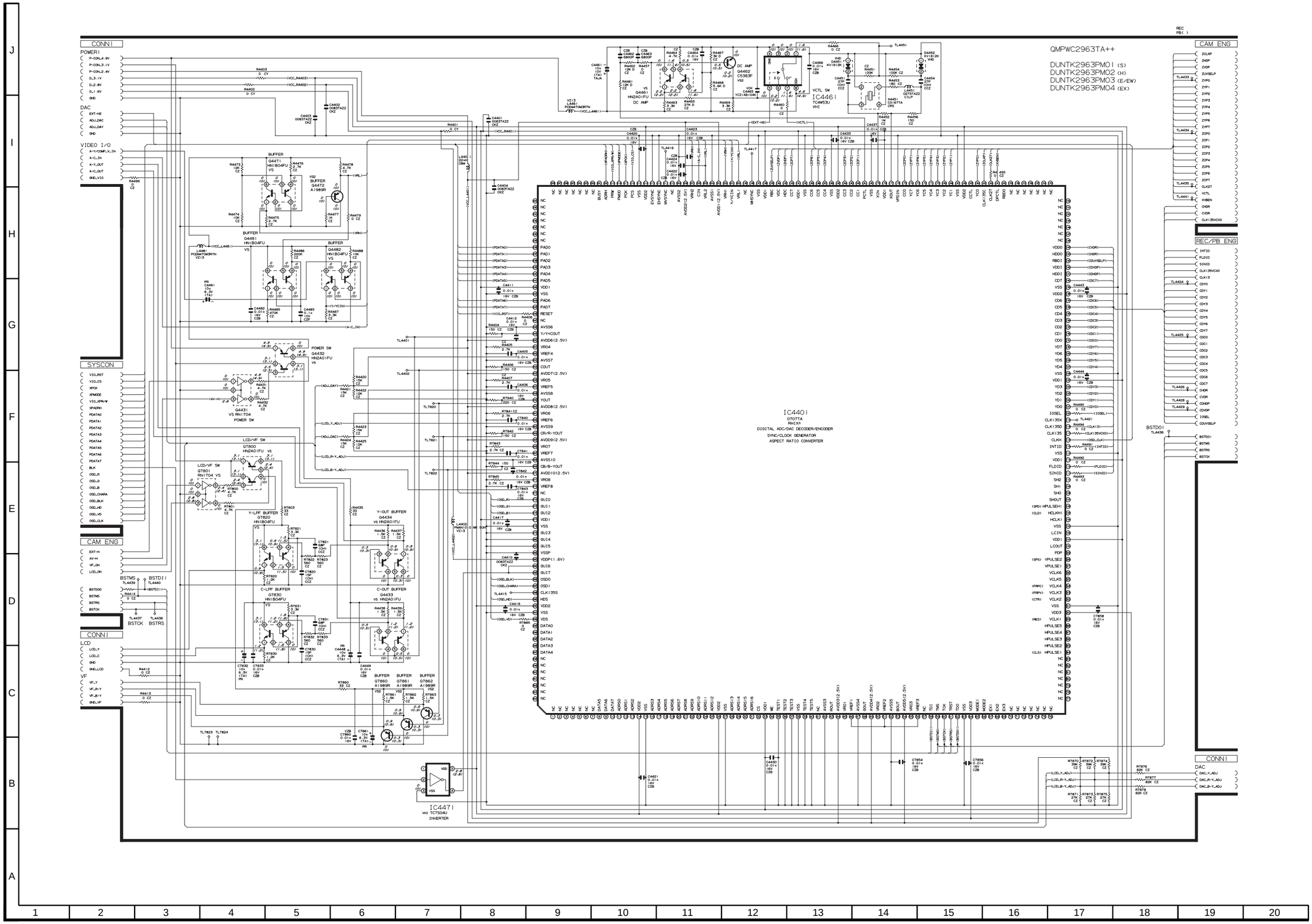
13-7. SVART/LENS MICON SCHEMATIC DIAGRAM



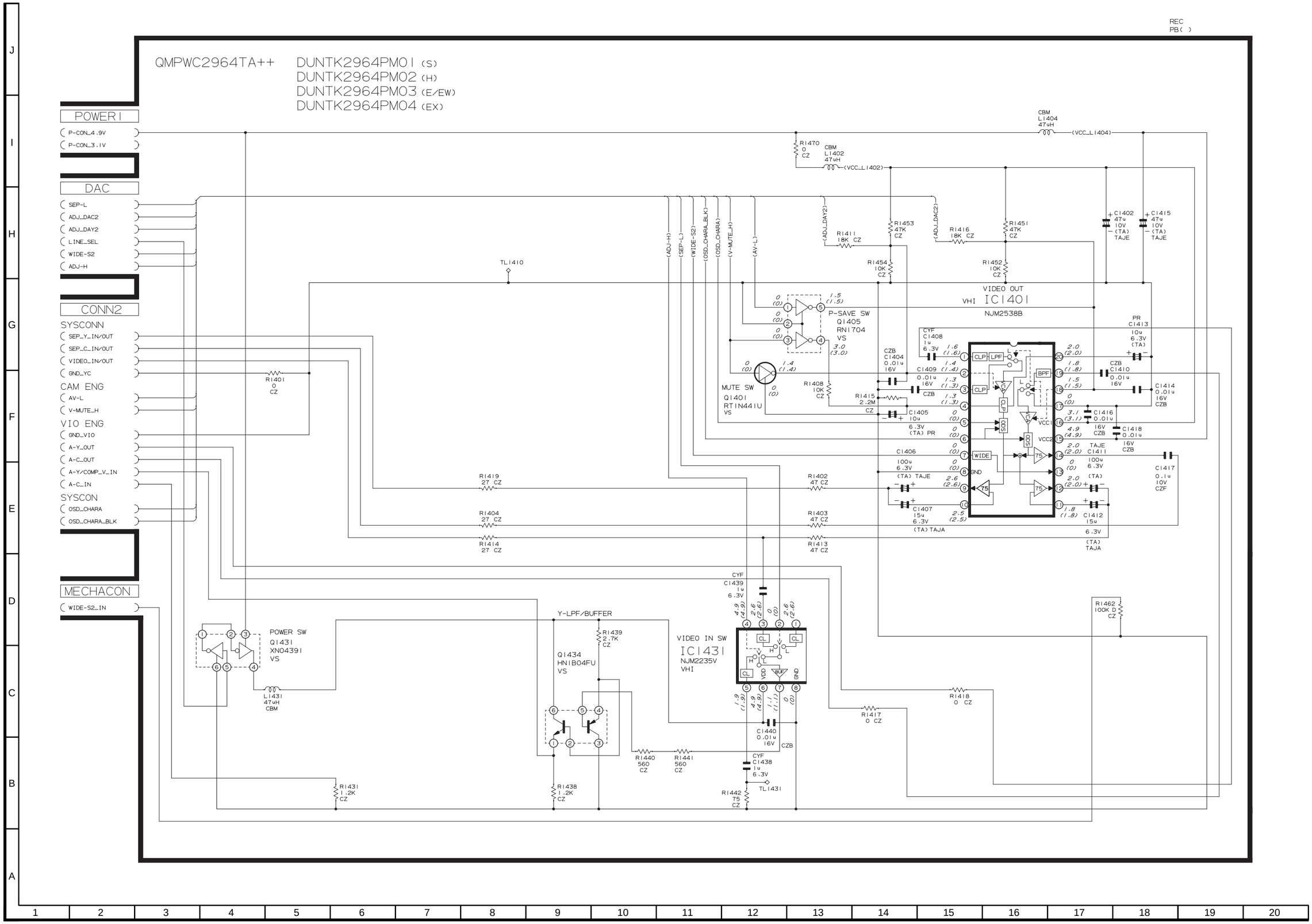
13-8.CONN1 SCHEMATIC DIAGRAM



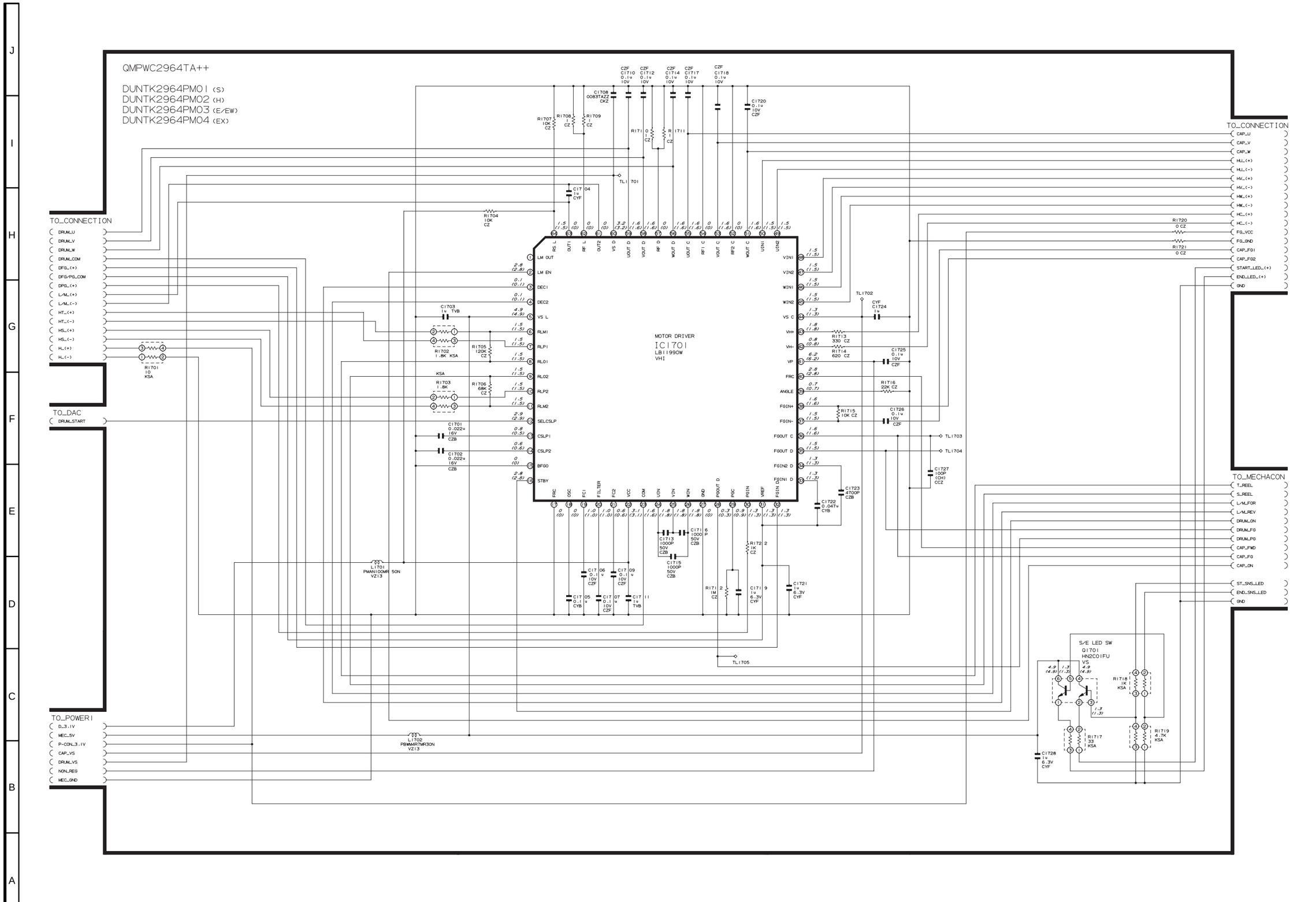
13-9. VIDEO I/O ENGINE SCHEMATIC DIAGRAM



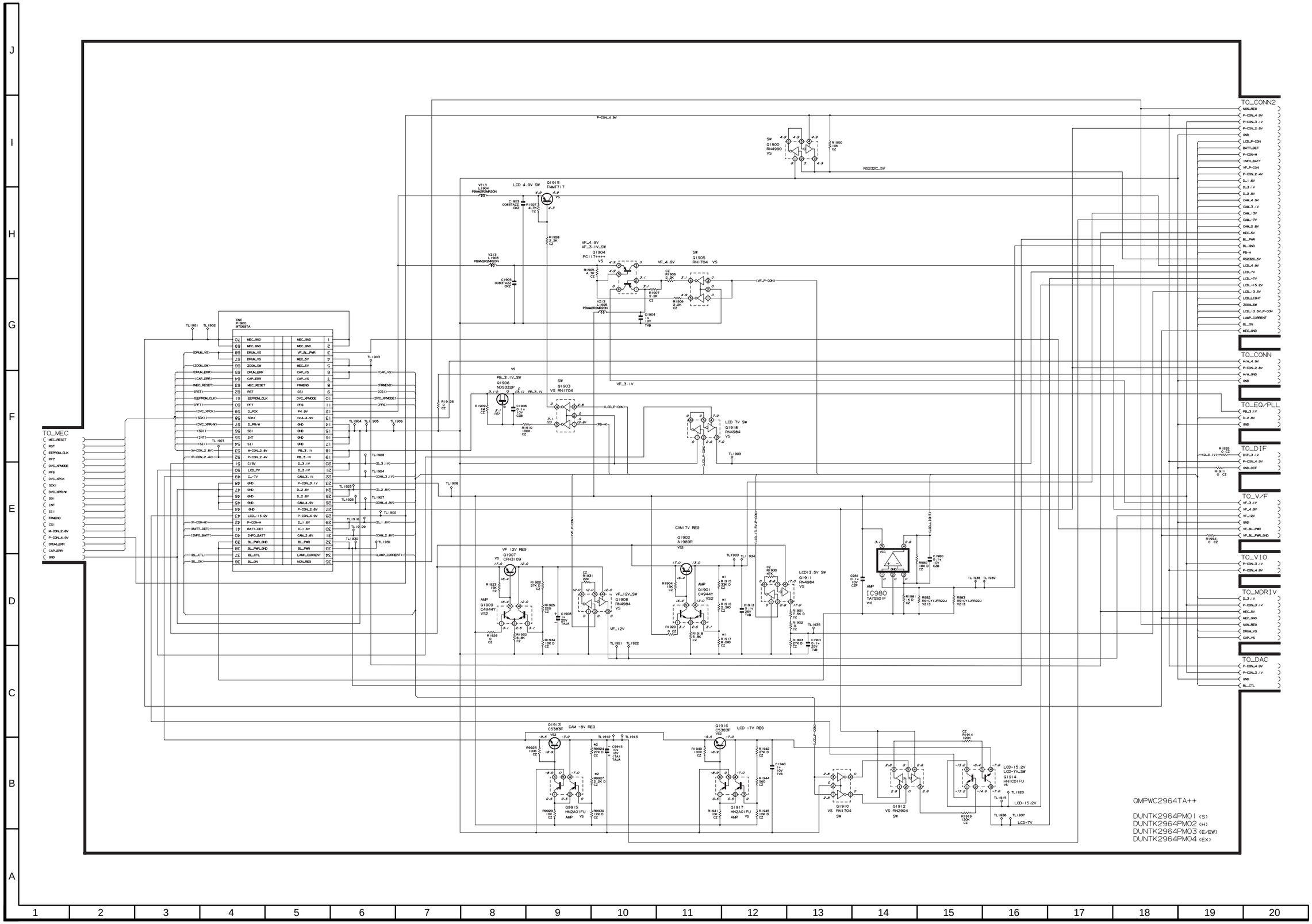
13-10. VIDEO I/O SCHEMATIC DIAGRAM



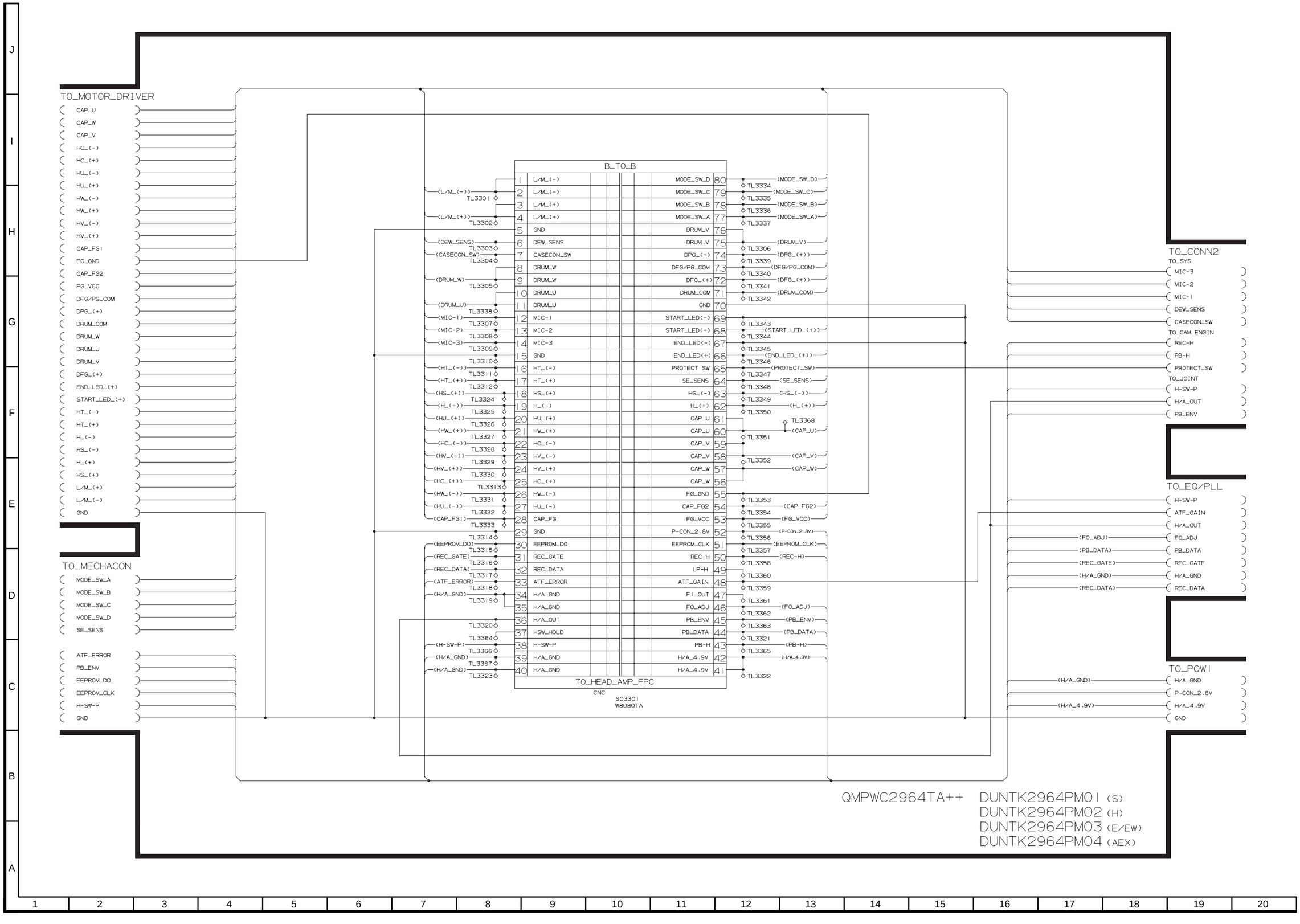
13-11. MOTOR DRIVER SCHEMATIC DIAGRAM



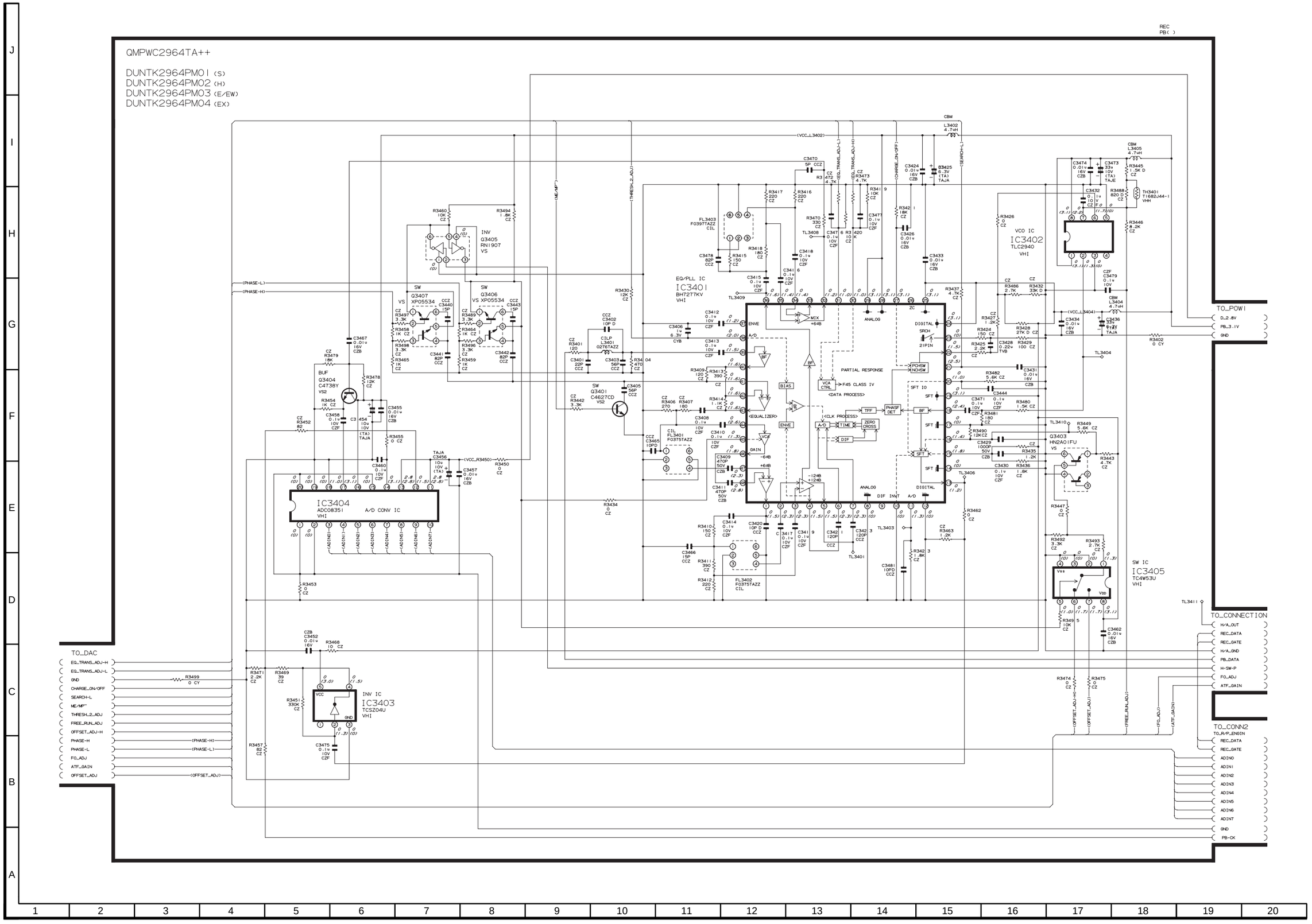
13-12. POWER1 SCHEMATIC DIAGRAM



13-13. CONNECTION(B-B) SCHEMATIC DIAGRAM



13-14. EQ/PLL SCHEMATIC DIAGRAM



13-15. DAC SCHEMATIC DIAGRAM

QMPWC2964TA++

DUNTK2964PM01 (S)
DUNTK2964PM02 (H)
DUNTK2964PM03 (E/EW)
DUNTK2964PM04 (EX)

D/A CONVERTER
IC4701
MB88344F
VHI

C4702
0.1u
10V
CZF

C4701
0.1u
10V
CZF

TO_CONN2
VF_OSD_ON
MON_OSD_ON
TO_AUDIO_I/O
FADE_CTL

EXT-H2
TO_VIO_ENGIN
ADJ_ADYT
ADJ_DAY
ADJ_DAC
DAC_Y_ADJ
DAC_R-Y_ADJ
DAC_B-Y_ADJ
TO_R/P_ENGIN
PLL_BIAS_DA

TO_SYS
PSC_DATA
PSC_CLK
D/A_STB
GND

TO_EQ/PLL
OFFSET_ADJ-H
OFFSET_ADJ
EQ_TRANS_ADJ-H
EQ_TRANS_ADJ-L
PHASE-H
PHASE-L
FREE_RUN_ADJ
THRESH_2_ADJ
CHARGE_ON/OFF
ME/MP
SEARCH-L
FO_ADJ
ATF_GAIN
GND

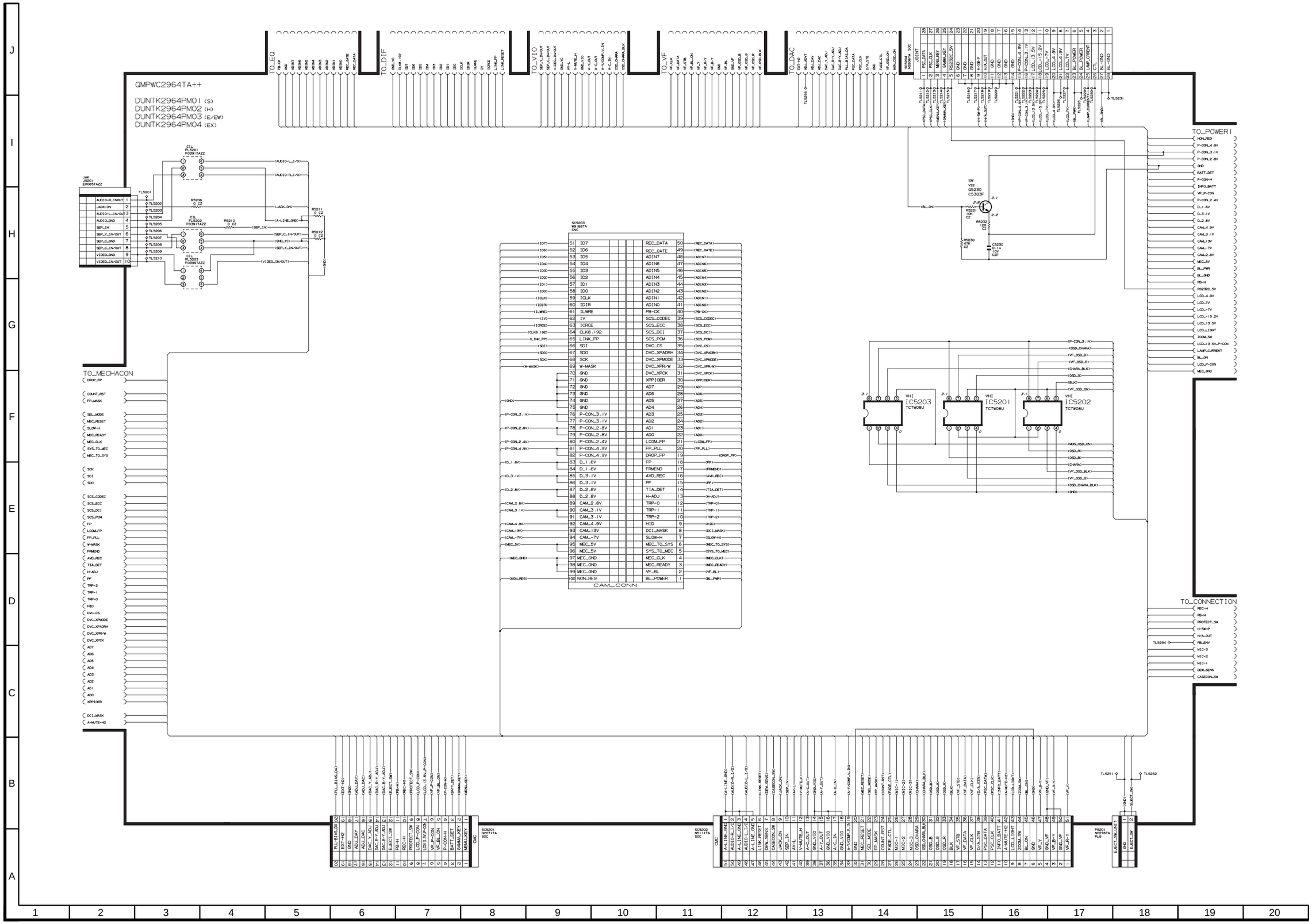
TO_VIDEO_I/O
WIDE-S2
LINE_SEL
SEP-L
ADJ-H
ADJ_DAY2
ADJ_DAC2

TO_VF
VF_VCO_ADJ

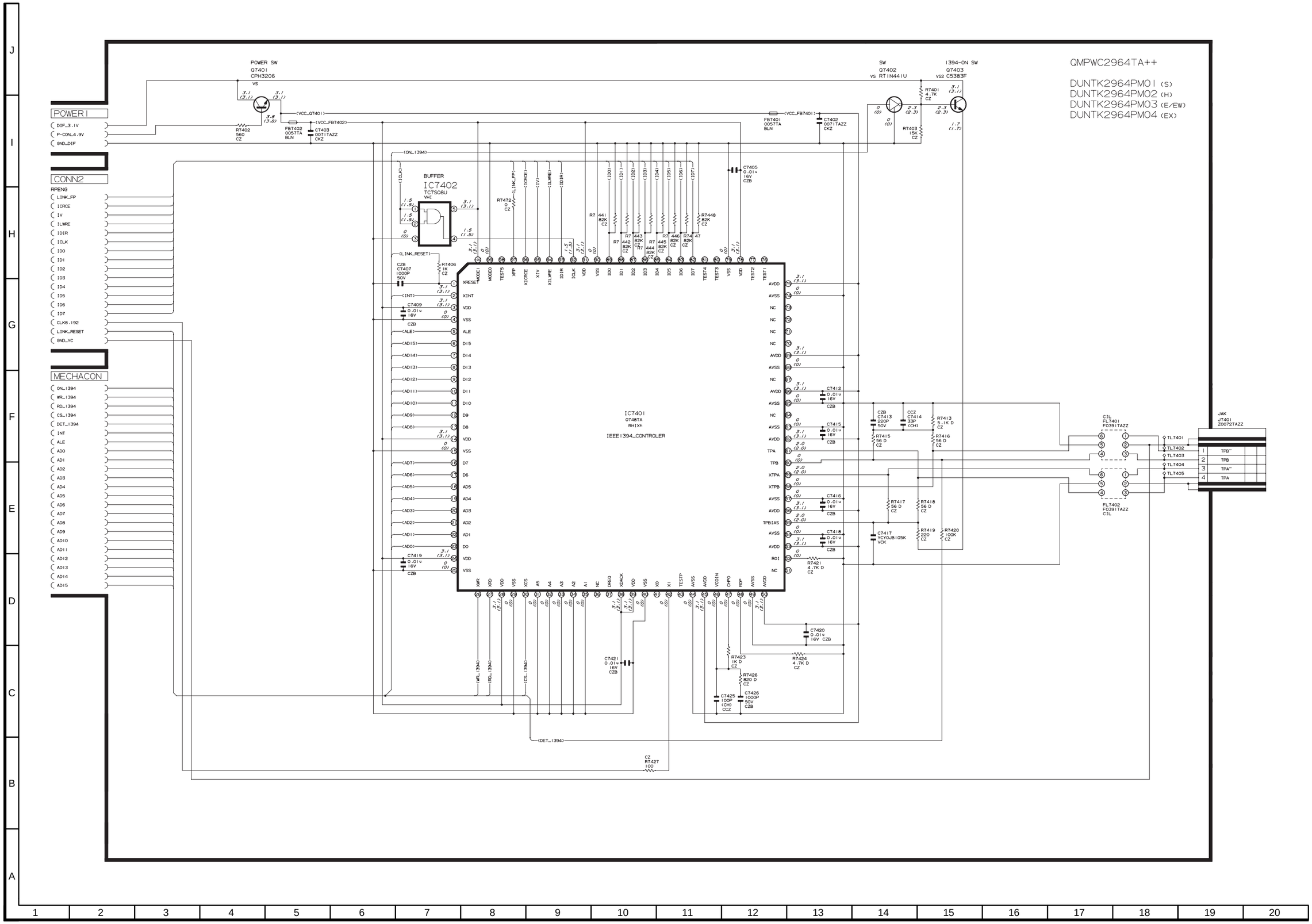
TO_MDRIV
DRUM_START

TO_POWER1
BL_CTL
P-CON_4.9V
P-CON_3.1V
GND

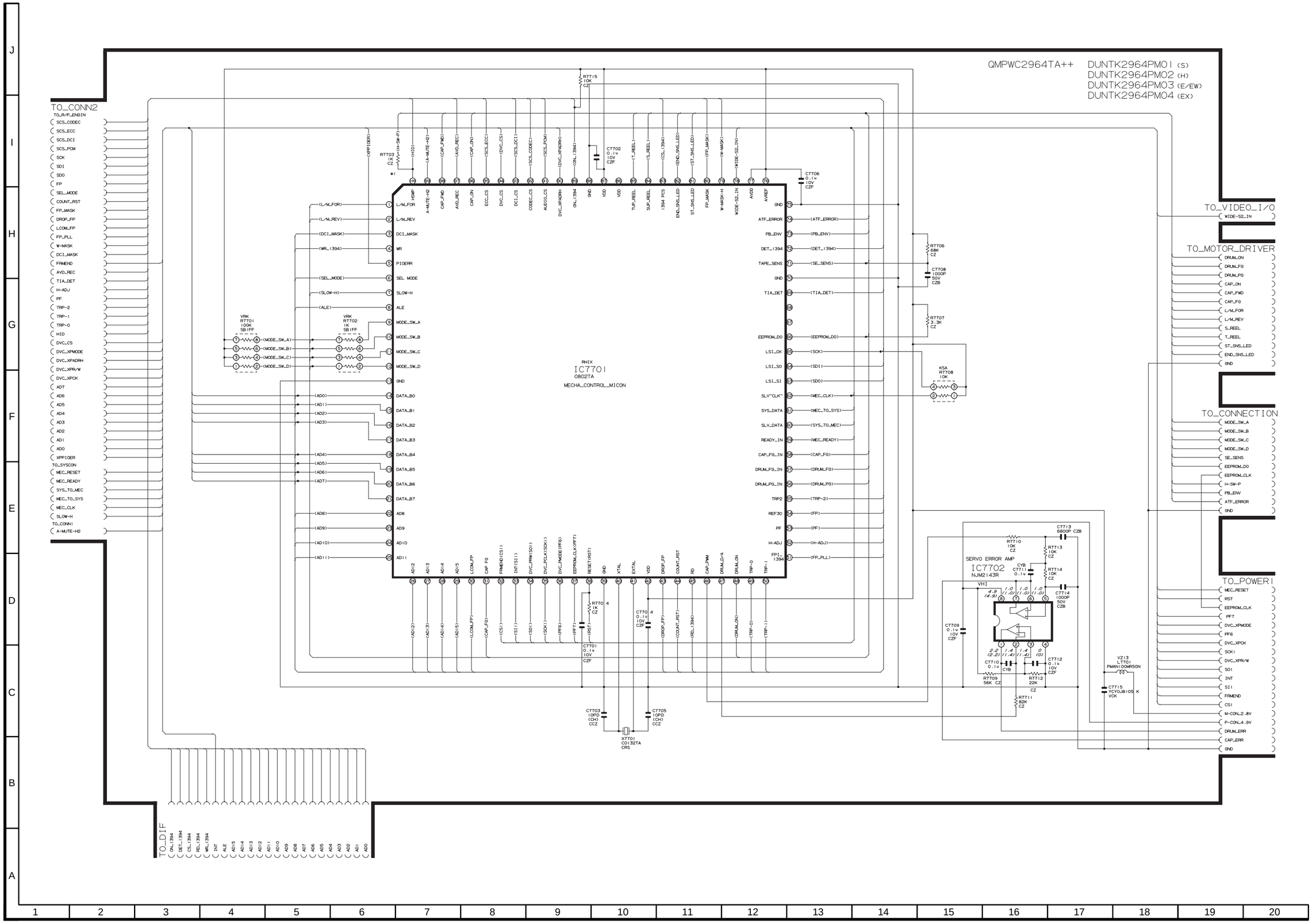
13-16. CONN2 SCHEMATIC DIAGRAM



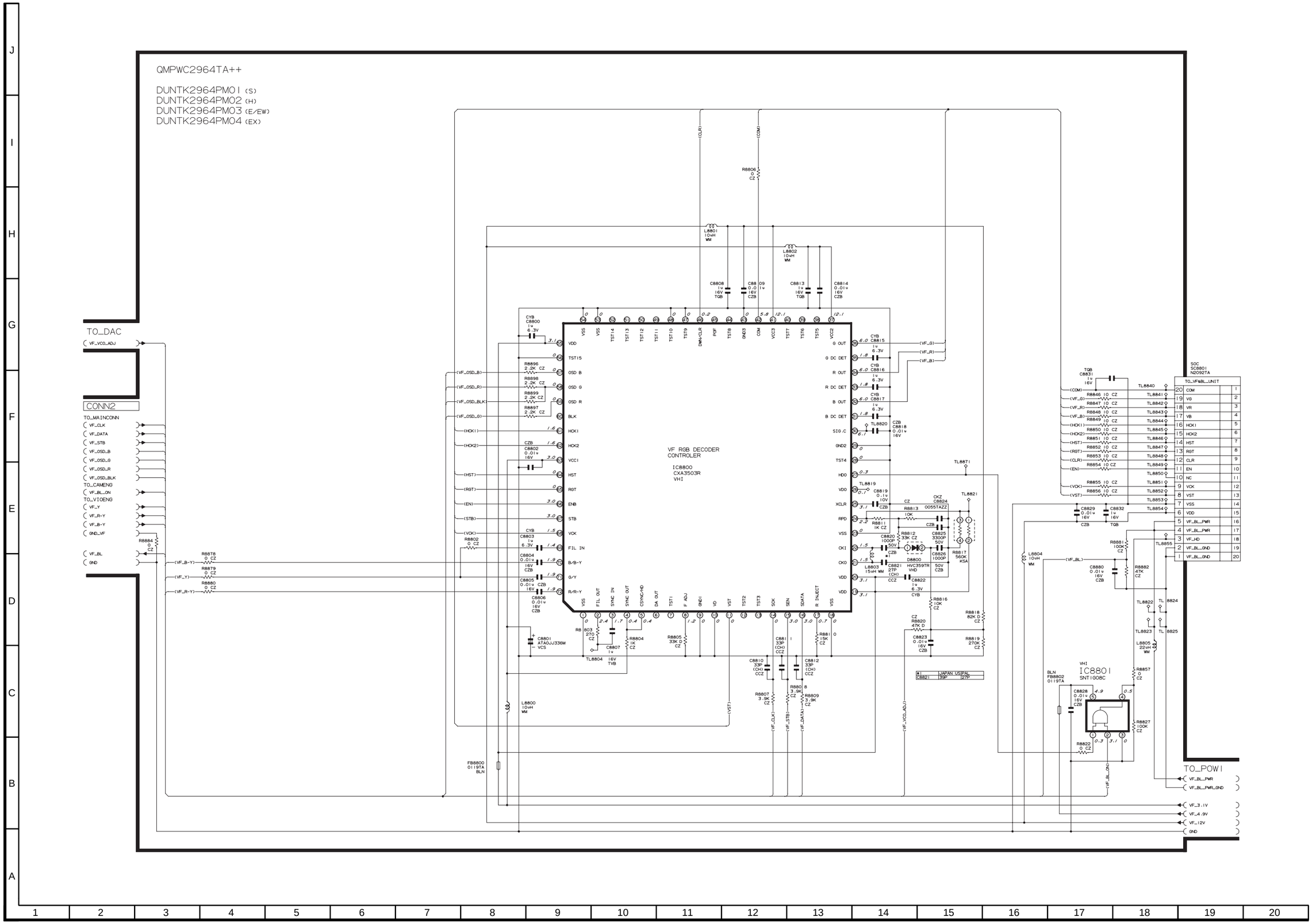
13-17. DIGITAL I/F SCHEMATIC DIAGRAM



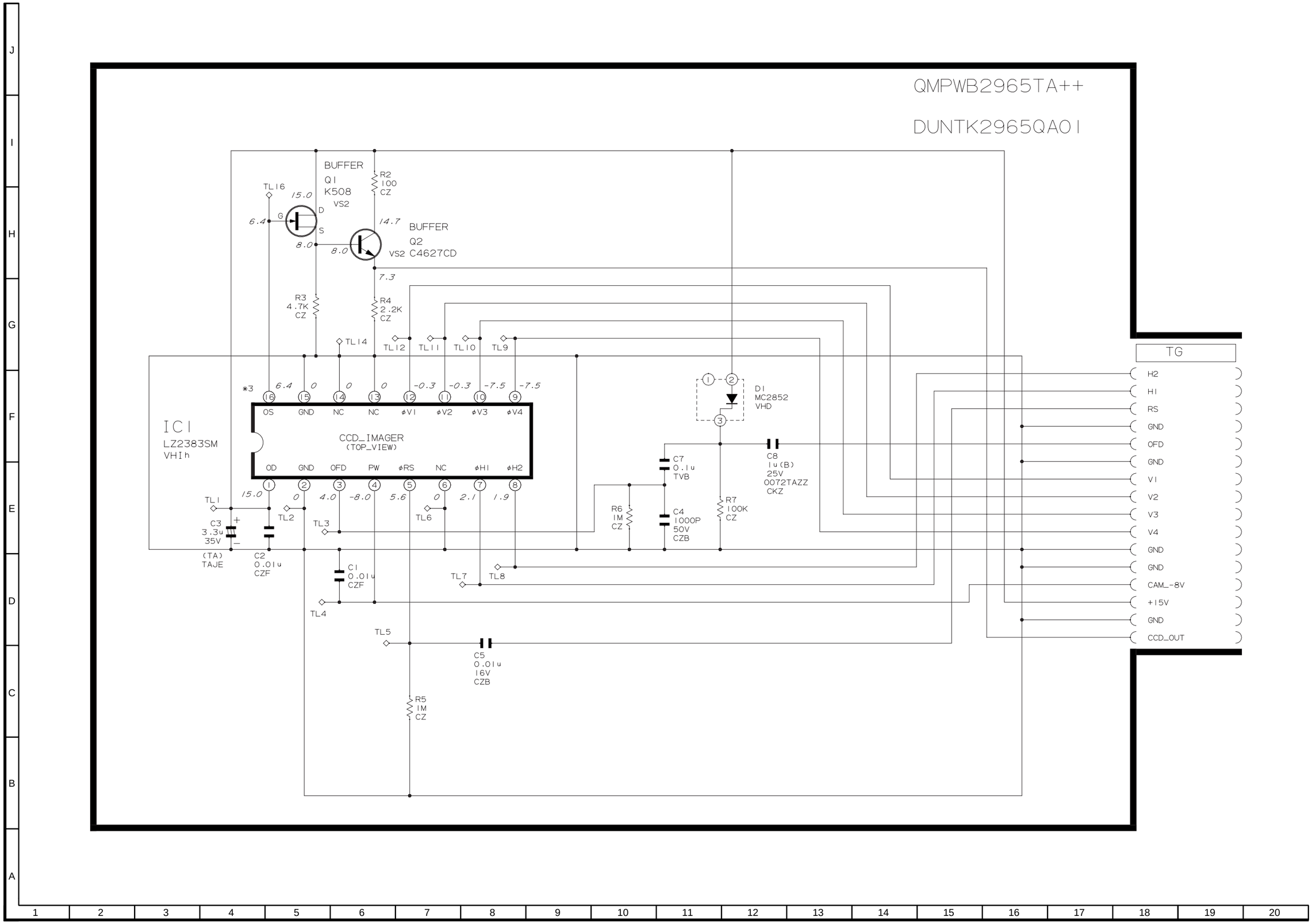
13-18. MECHACON SCHEMATIC DIAGRAM



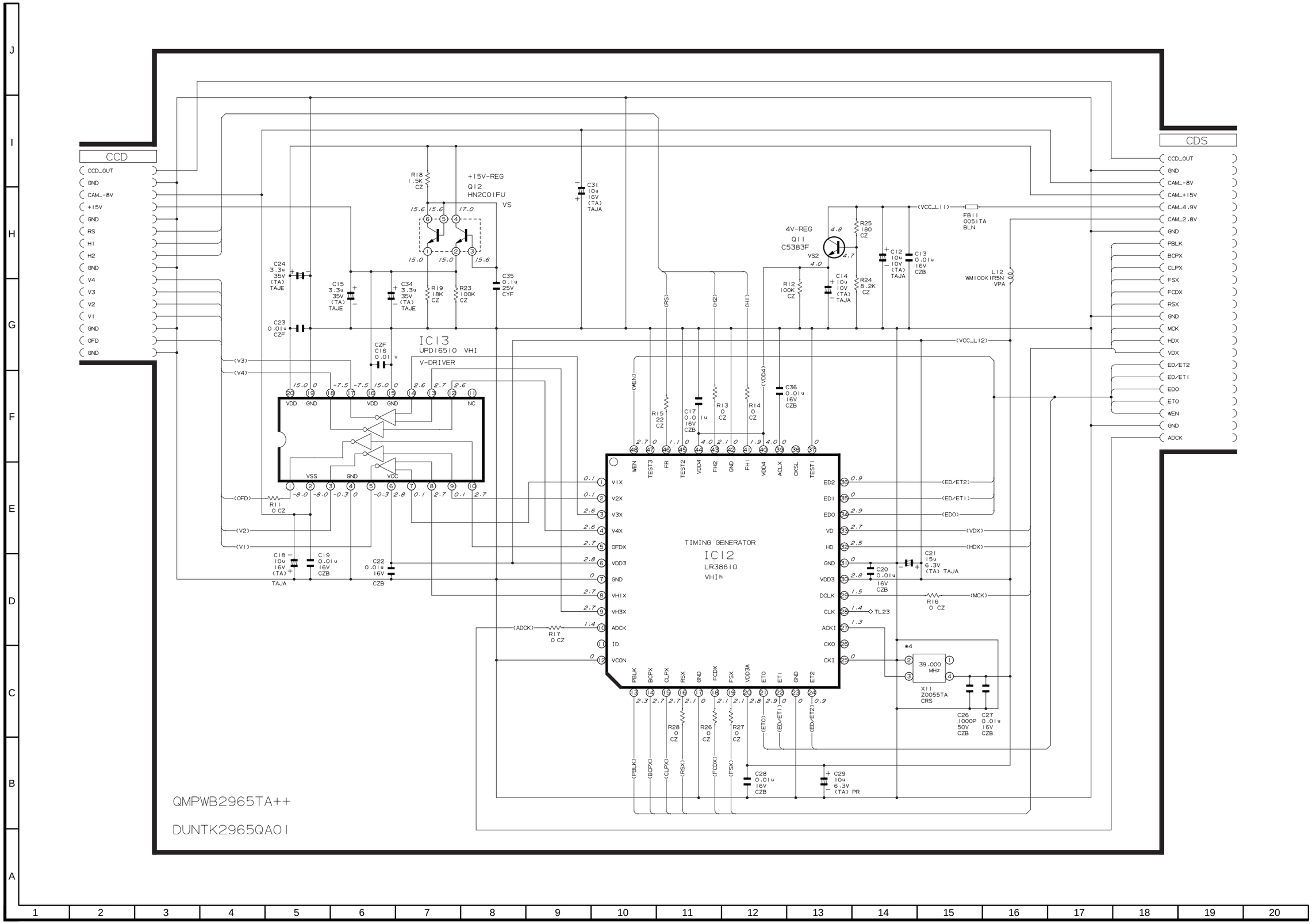
13-19. V/F SCHEMATIC DIAGRAM



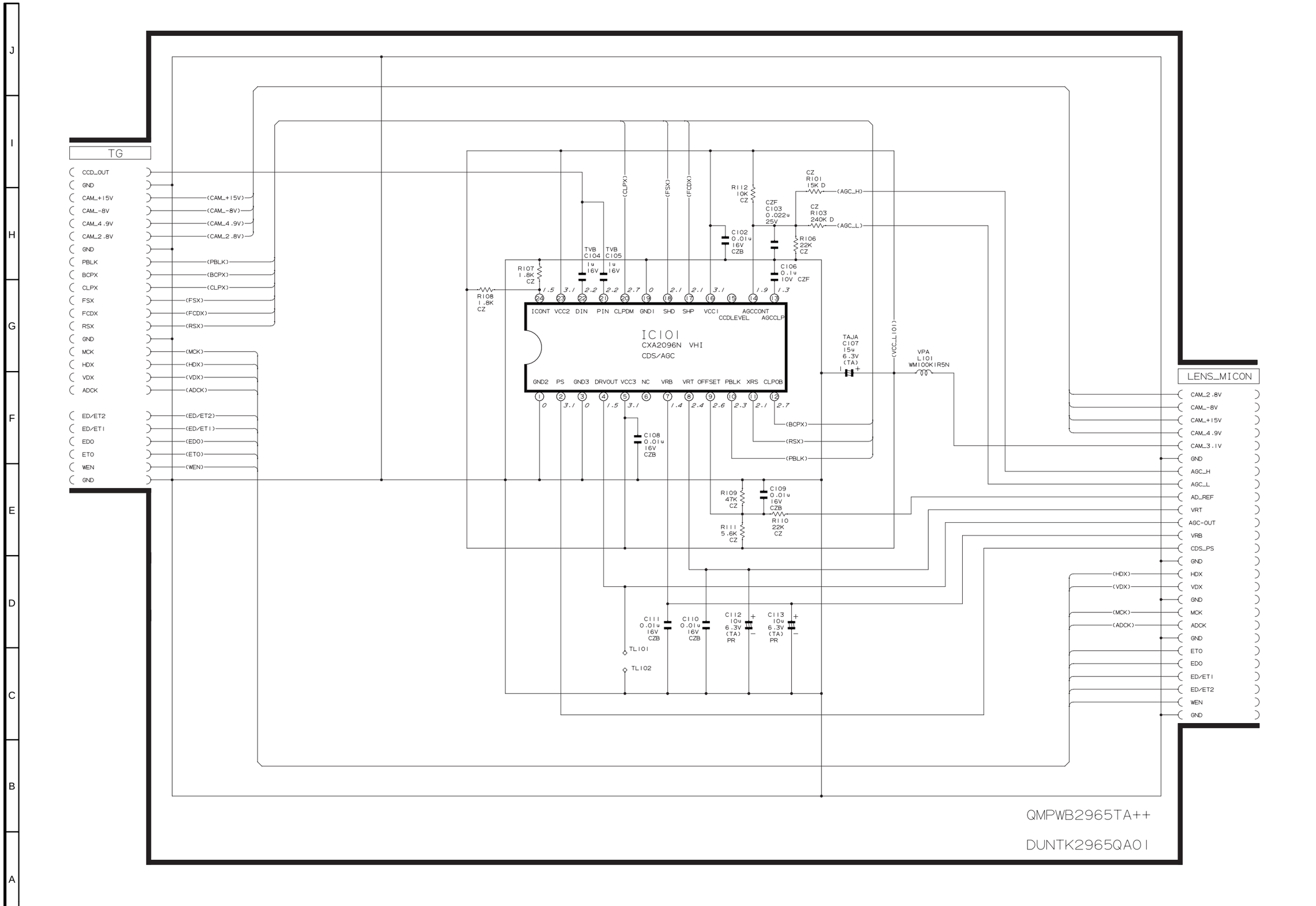
13-20. CCD SCHEMATIC DIAGRAM



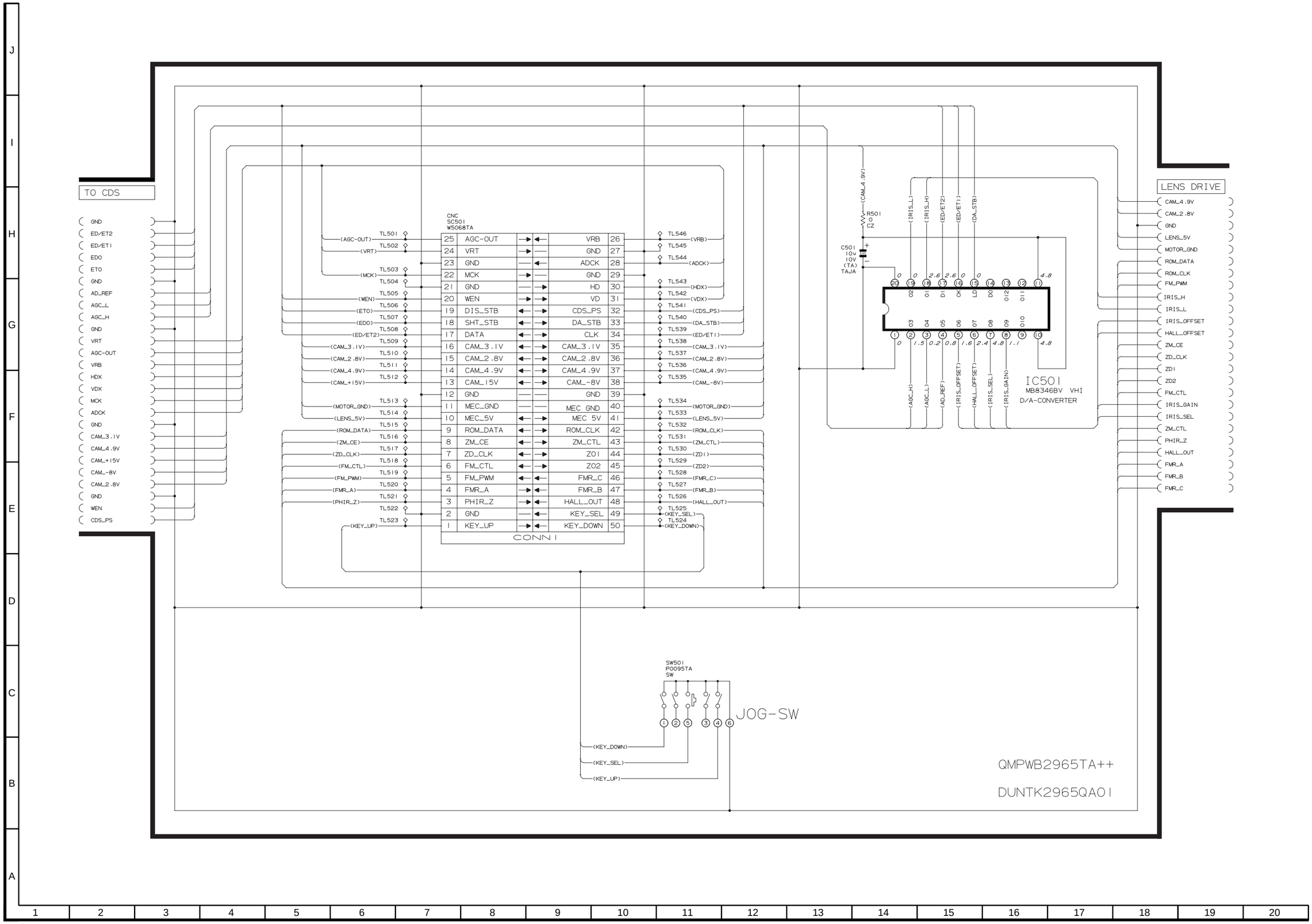
13-21. TG SCHEMATIC DIAGRAM



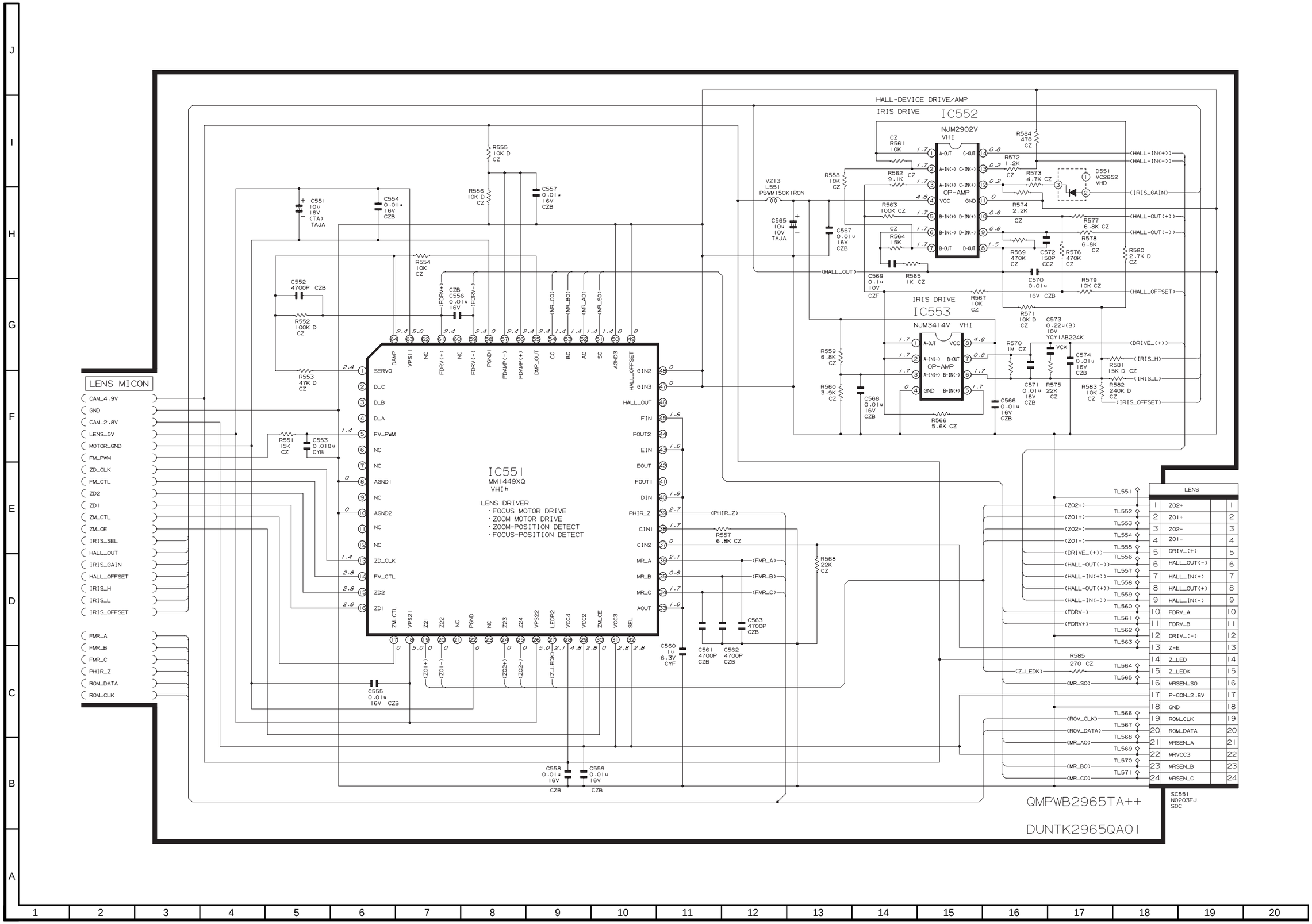
13-22. CDS SCHEMATIC DIAGRAM



13-23. LENS JOG SCHEMATIC DIAGRAM

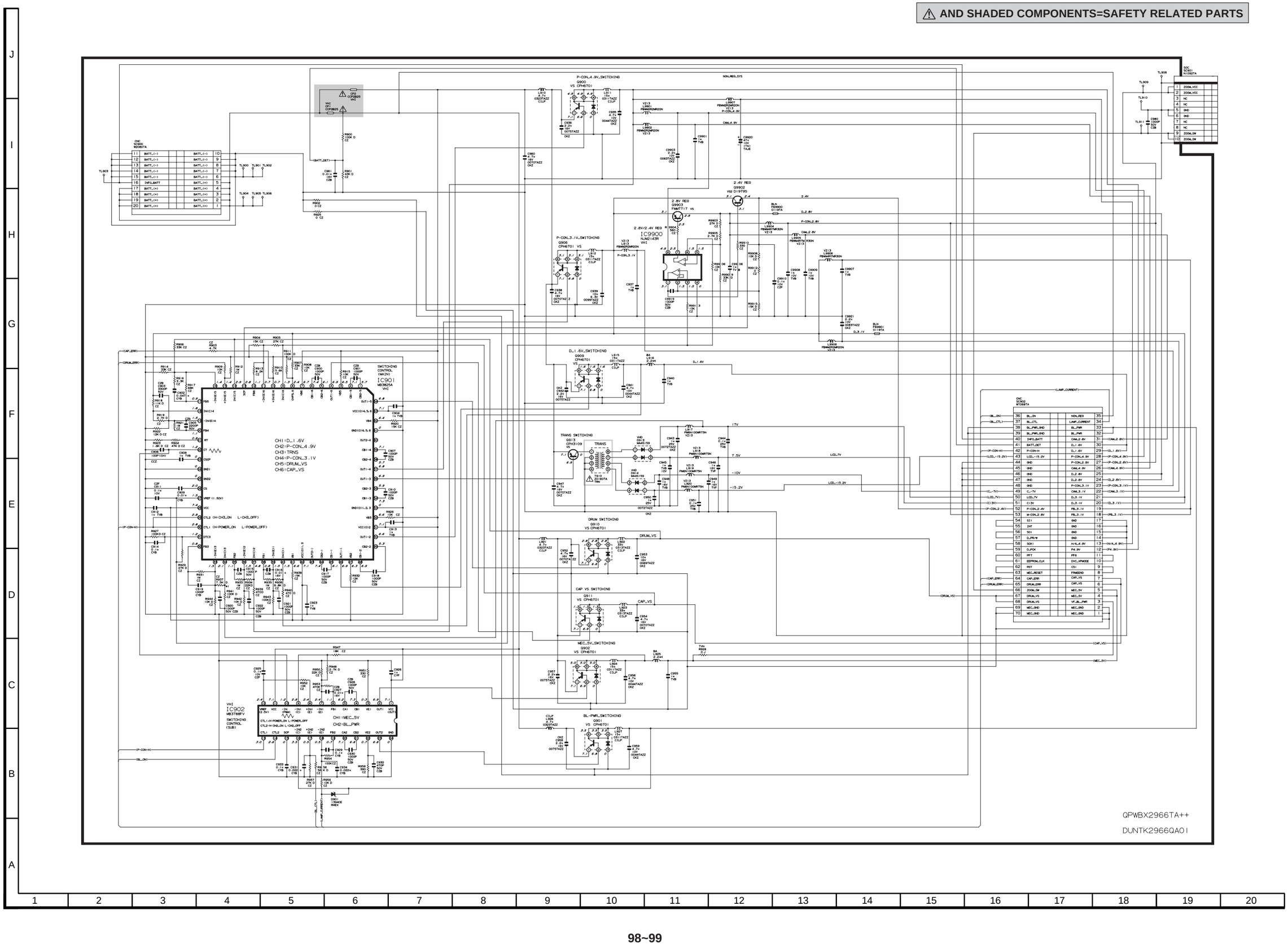


13-24. LENS DRIVE SCHEMATIC DIAGRAM



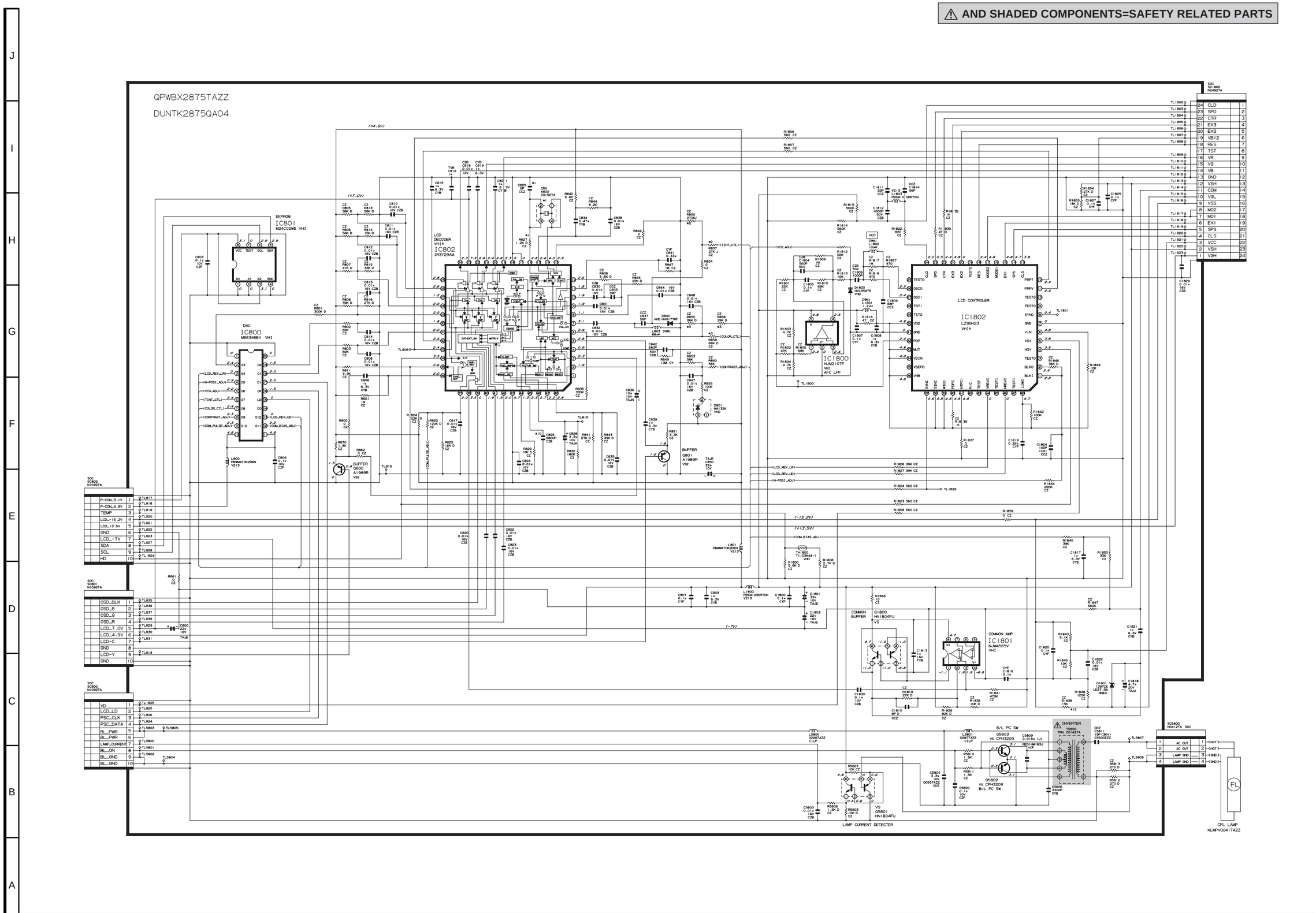
13-25. POWER2 SCHEMATIC DIAGRAM

⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS

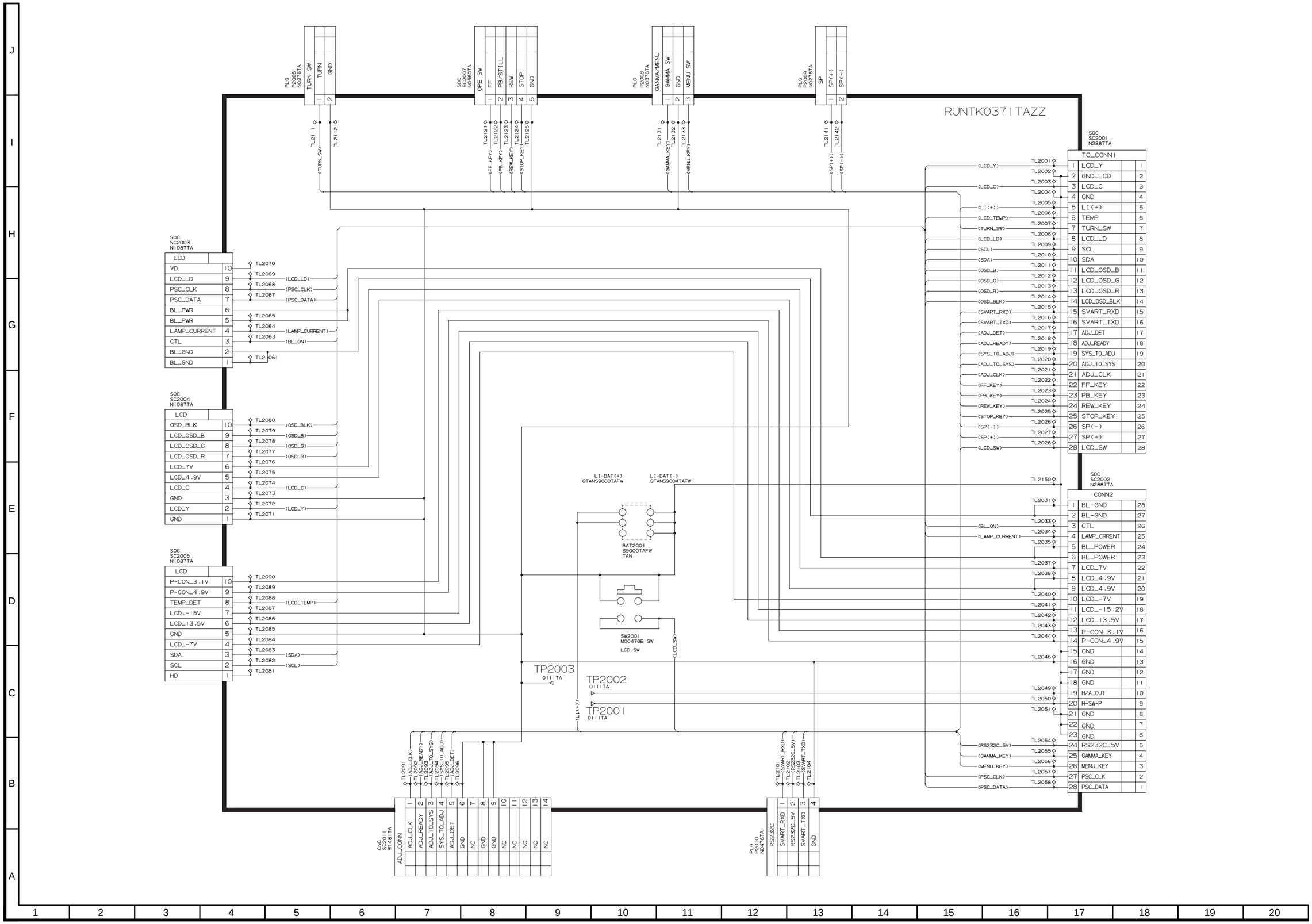


13-26. LCD SCHEMATIC DIAGRAM

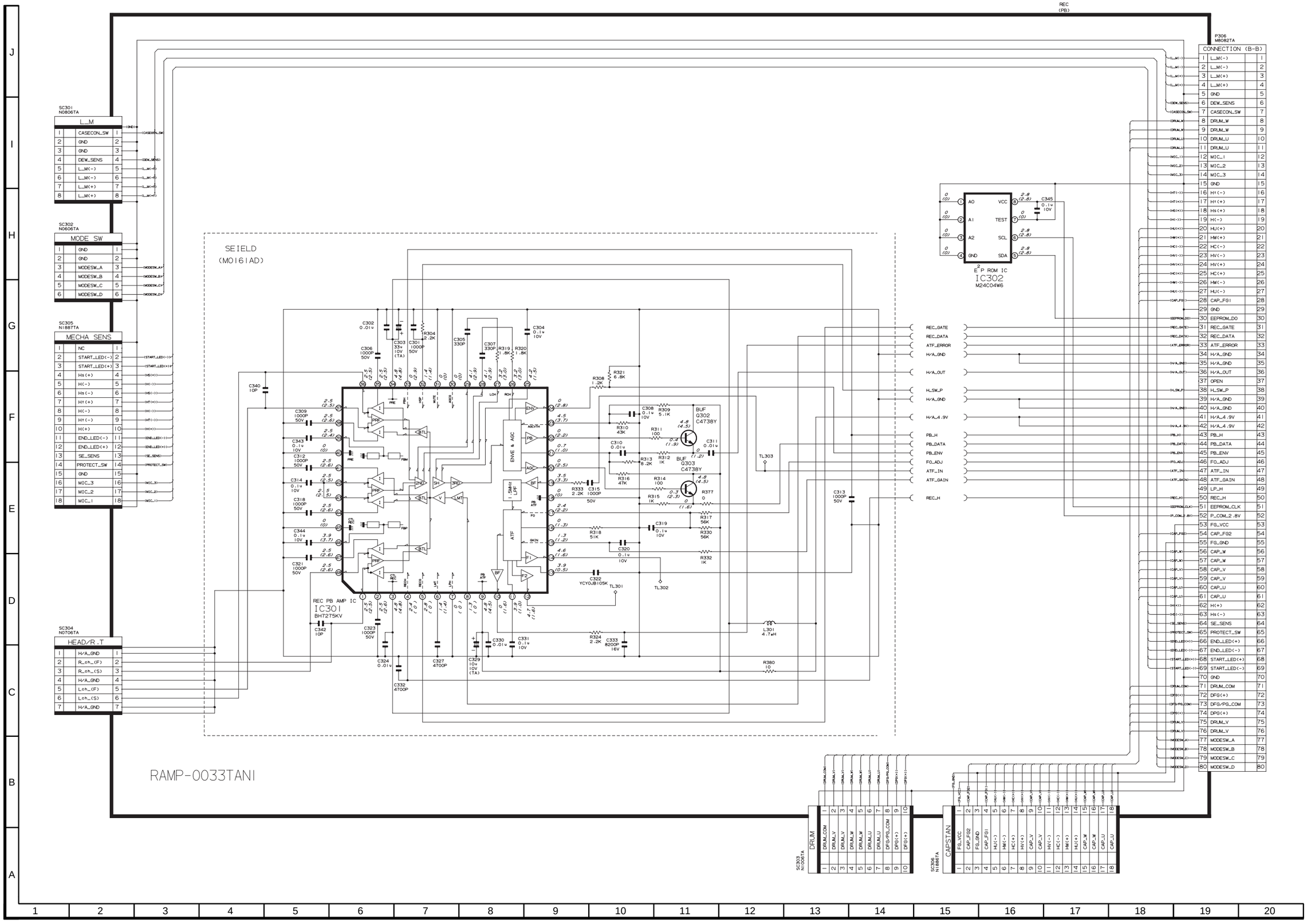
⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



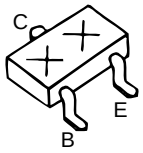
13-28. JOINT SCHEMATIC DIAGRAM



13-29. HEAD AMP SCHEMATIC DIAGRAM



14. SEMICONDUCTOR LEAD IDENTIFICATION



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2SC4738Y
FMMT717
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RT1N441U
2SC4627CD
UN9214
CPH3209
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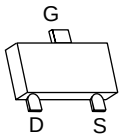
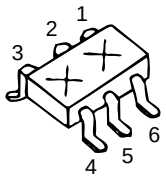
RT1P441U
CPH3206



3LN01S



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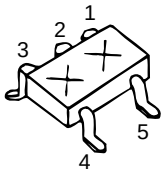
HN1B04FU
HN2C01FU
RN4990
XP05534
RN1907
CPH6701
TK11813M
RN4984
RN4982
FC117



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NJU7012F
PST597KN
TC7SL04U
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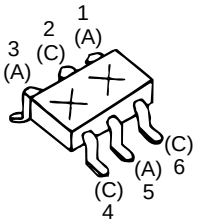

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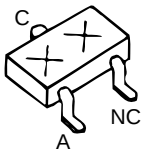

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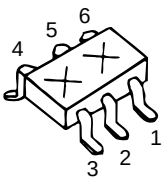

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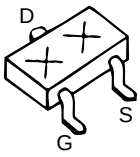

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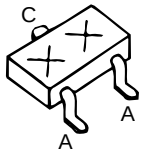

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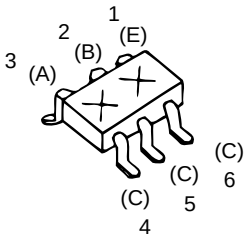
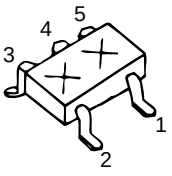


CPH6701



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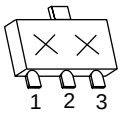
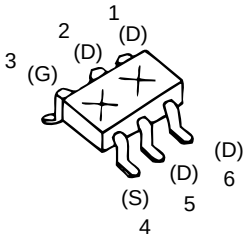
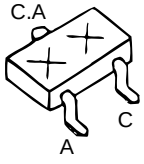
FMG12
SNT1G08C



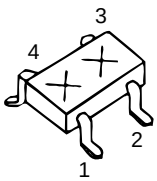
RH5RE58A



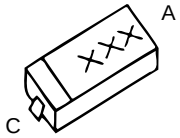
SI3443DV



DA221



PST592KM



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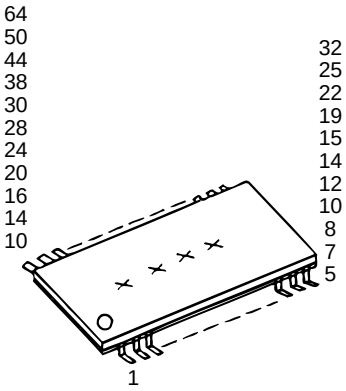
RD2R7UM0
HVU17TRF
EX1394CE
HVC359TR



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LA7473V
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T7A164S
UPD16510
NJM2538B
NJM2904V
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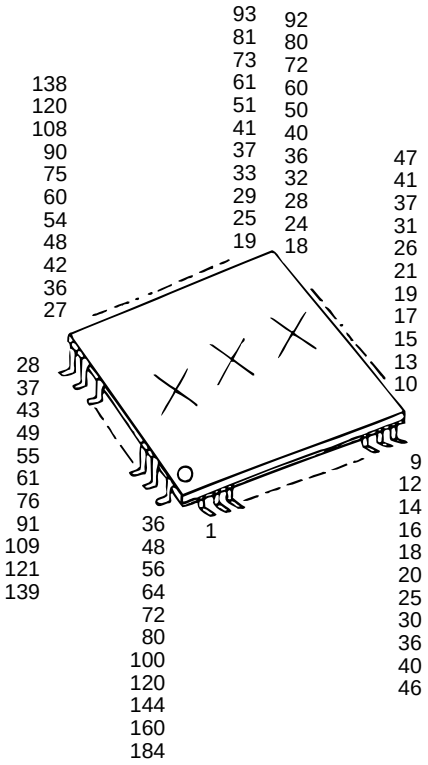

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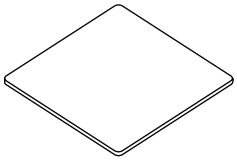

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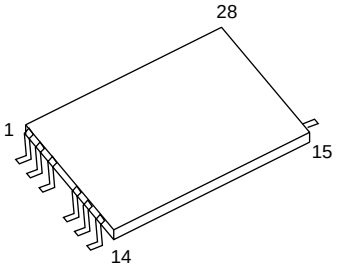
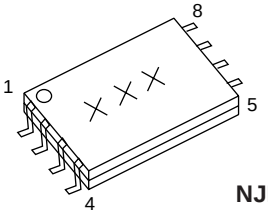
IX0710TA
IX0707TA
IX0802TA



IX0560TA



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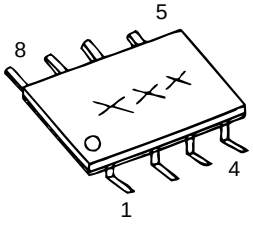
MM1116FS
TC4W53U
NJM4565V



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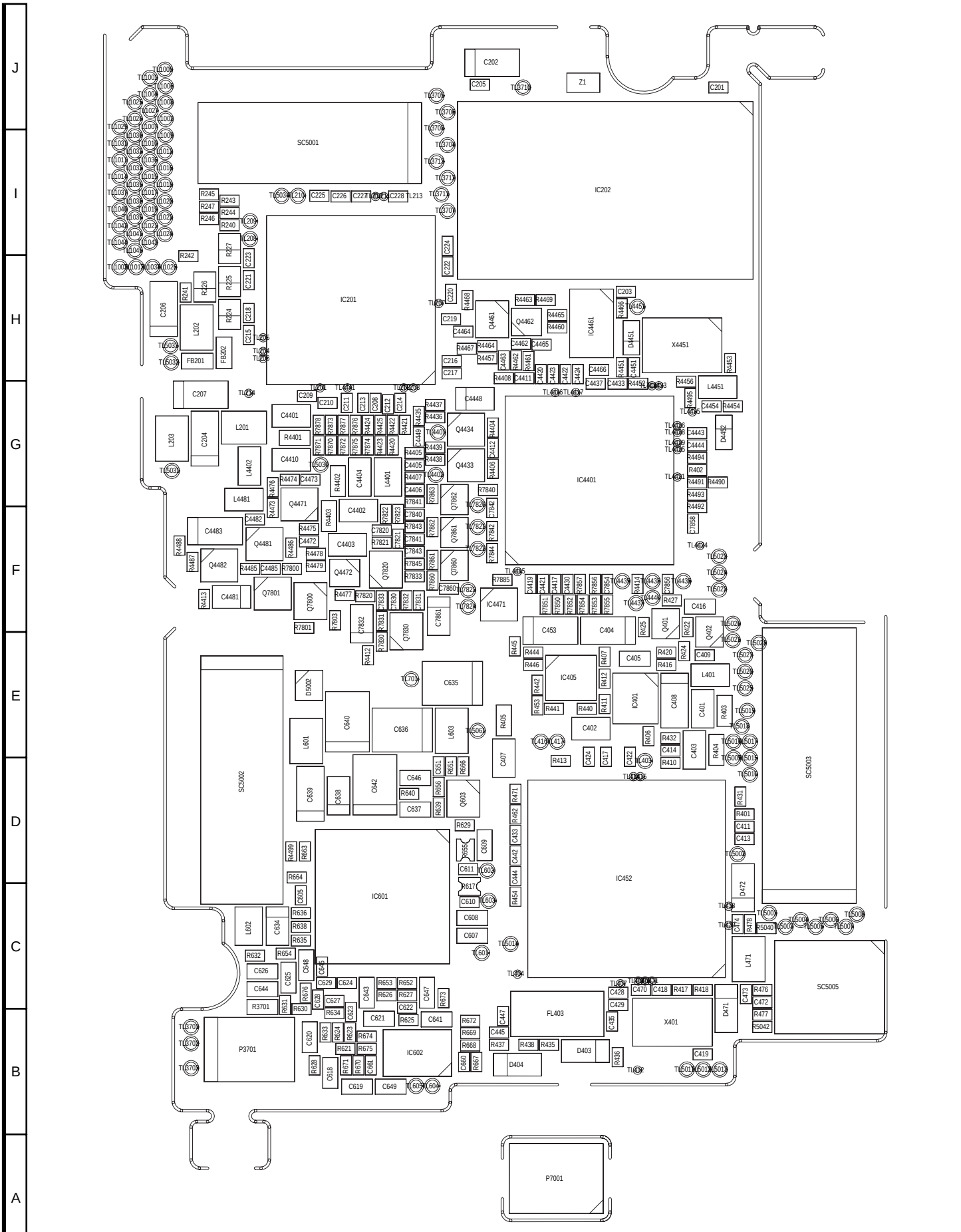
TC7W74U
TC7W08U
TC7WH74U
TC7W66U
M24C16W6
M24C04W6
M24C02W6
NJM2143R

15. PRINTED WIRING BOARD ASSEMBLIES MAIN1 PWB Component Side SIDE A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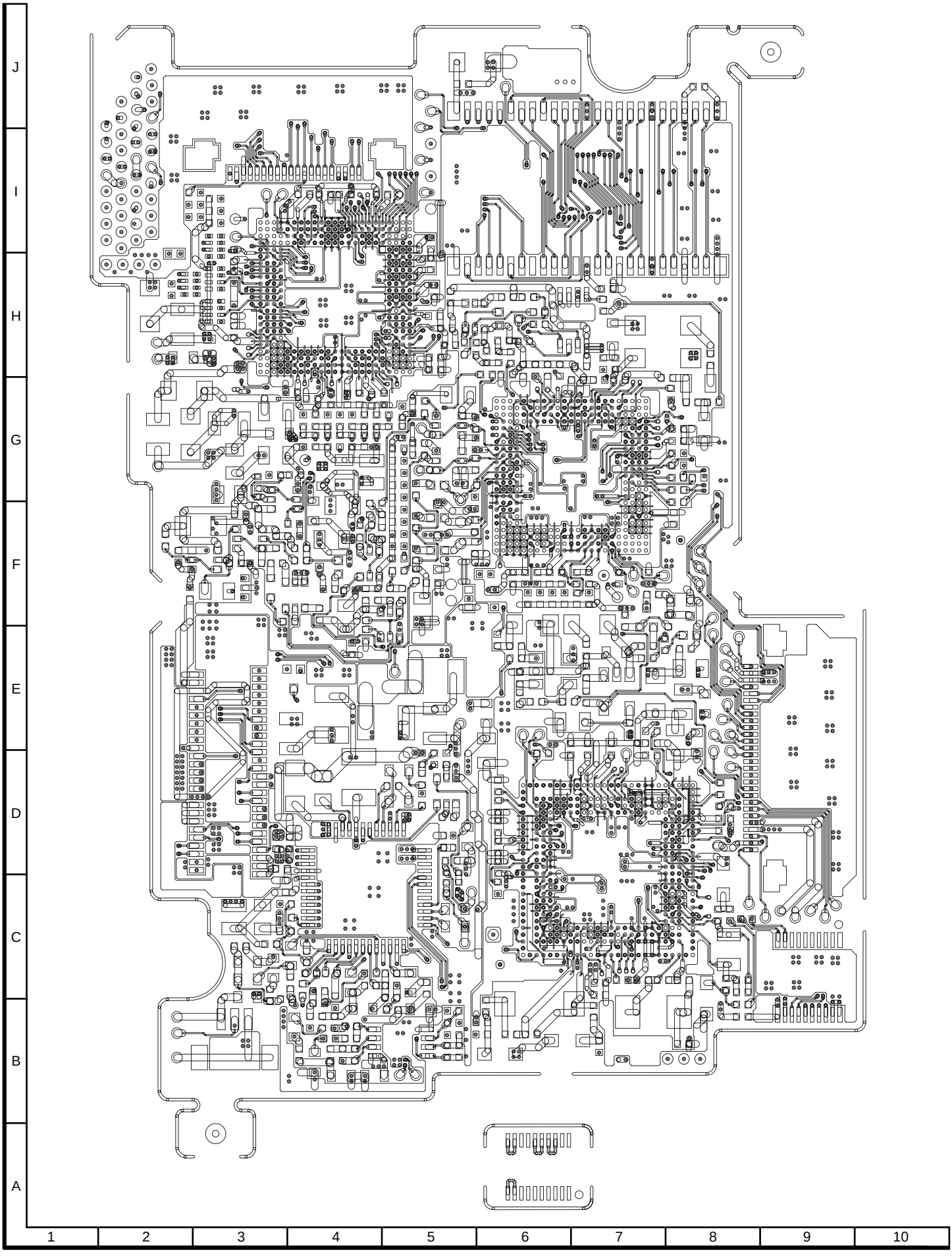
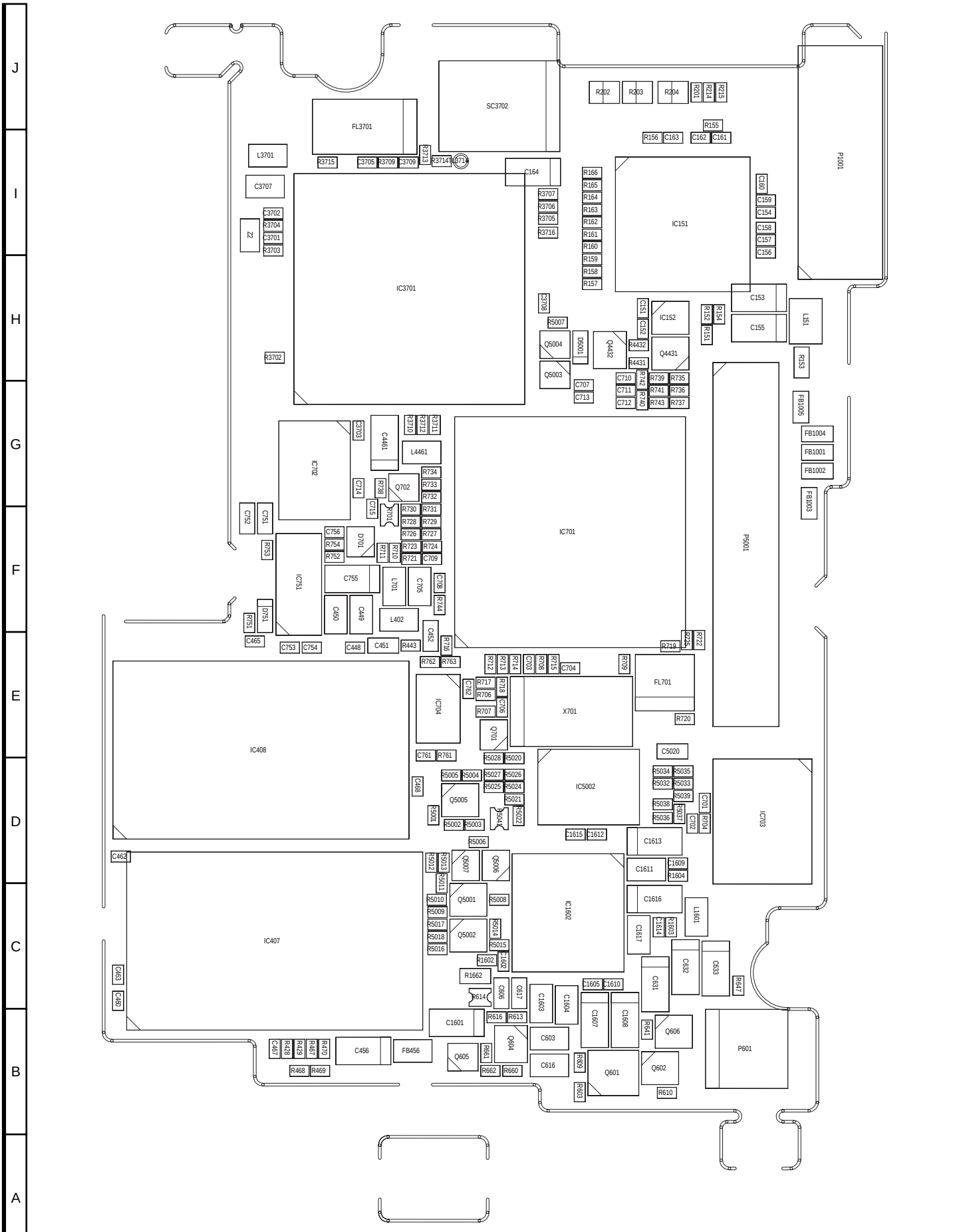
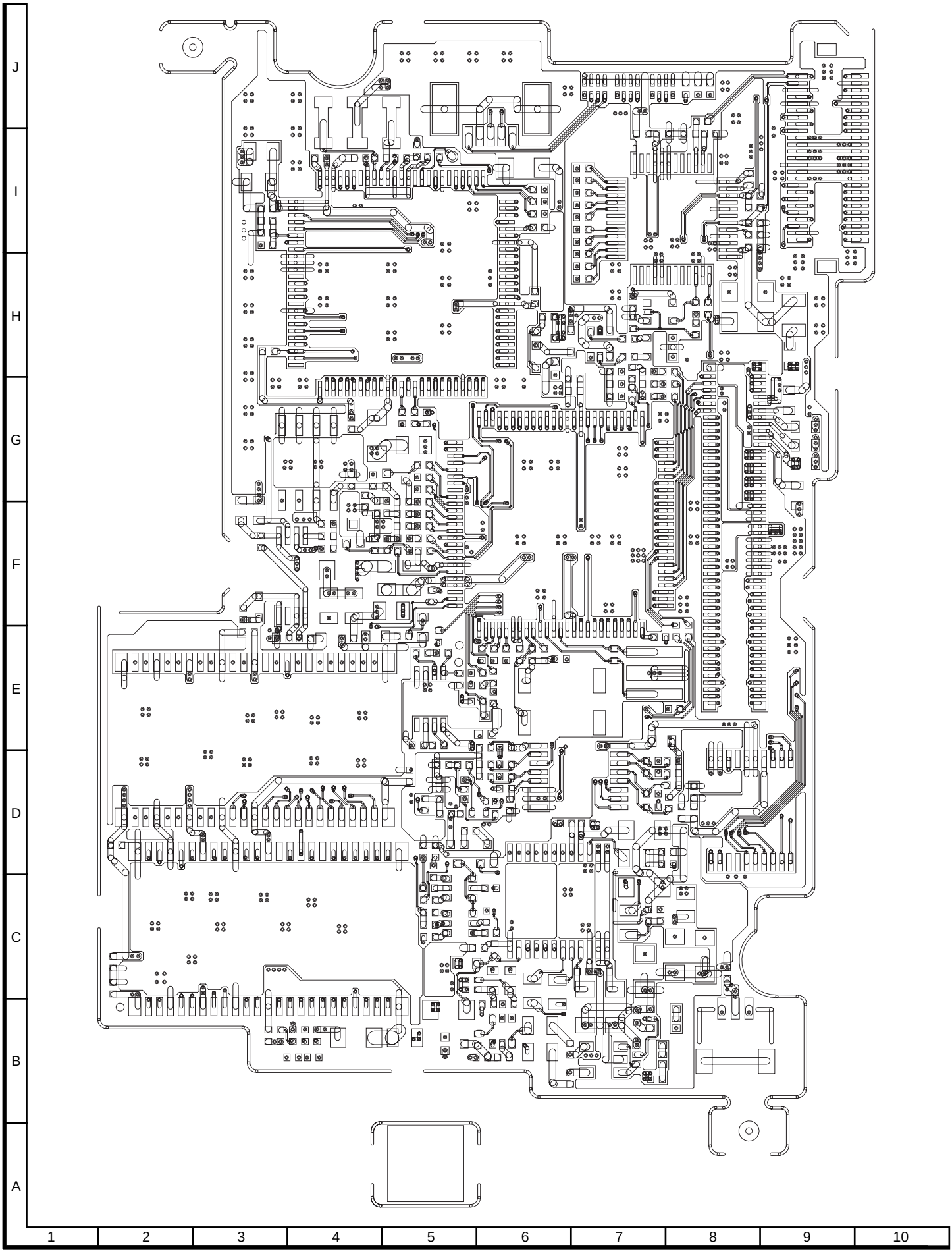
MAIN1 PWB Wiring Side SIDE A



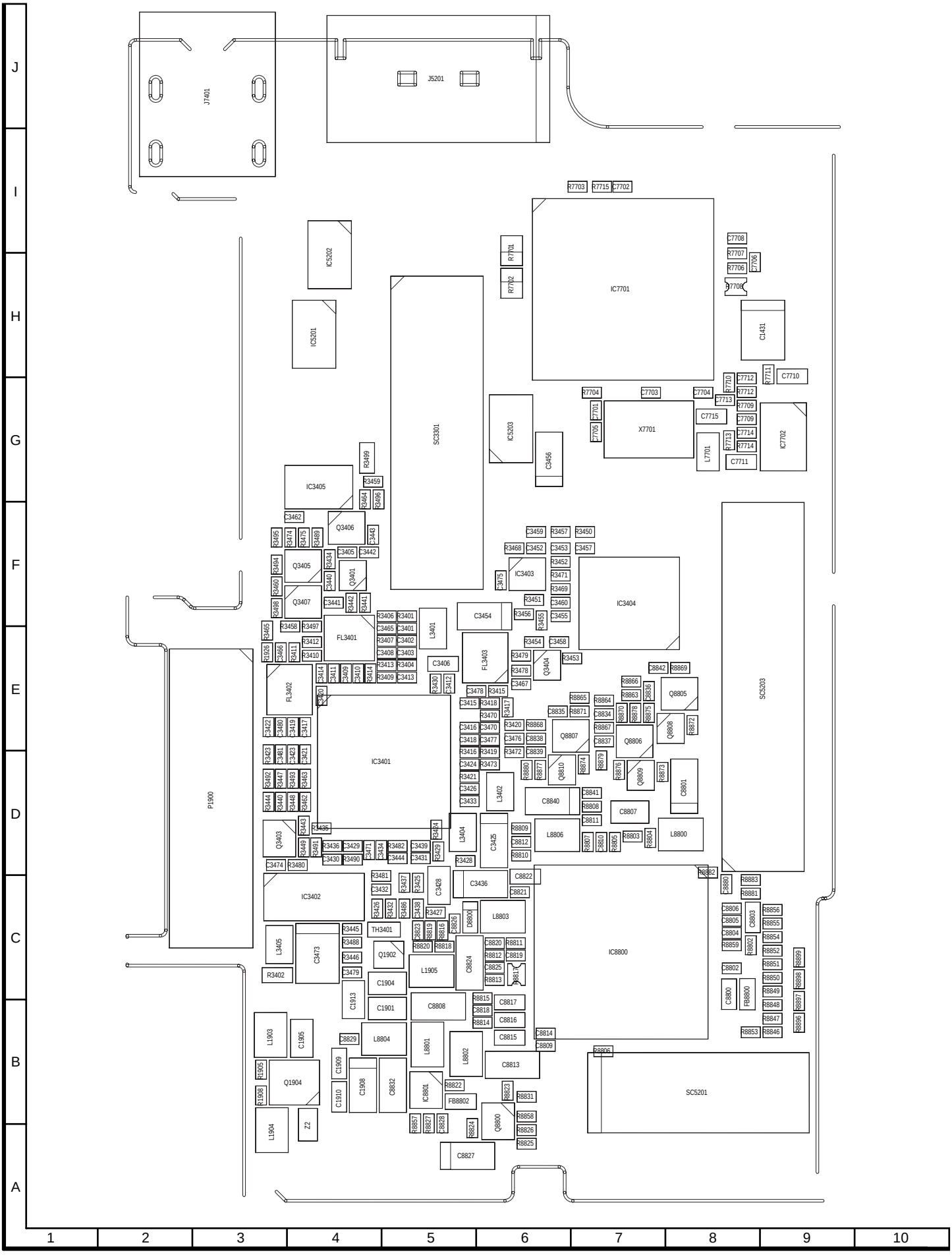
MAIN1 PWB Component Side SIDE B



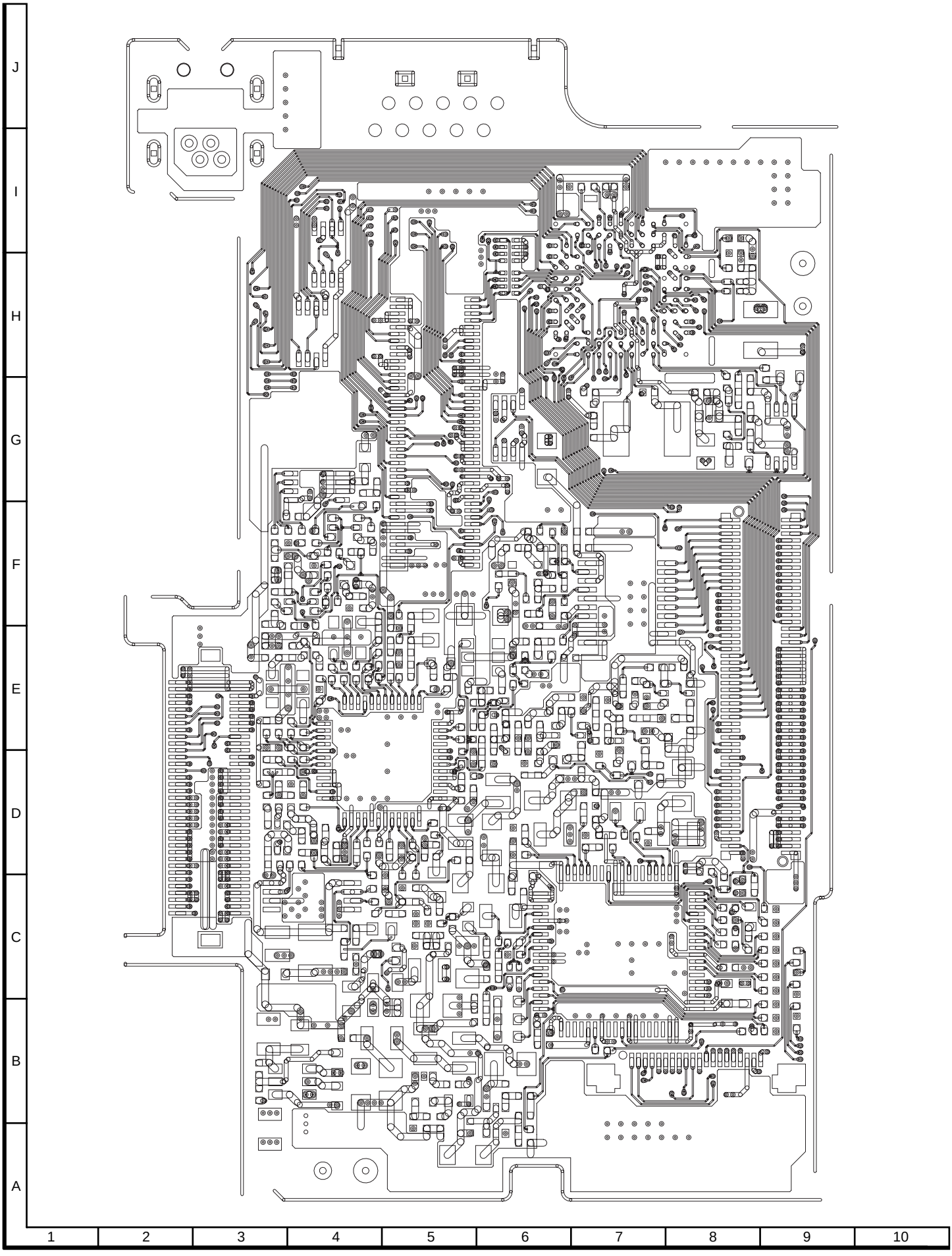
MAIN1 PWB Wiring Side SIDE B



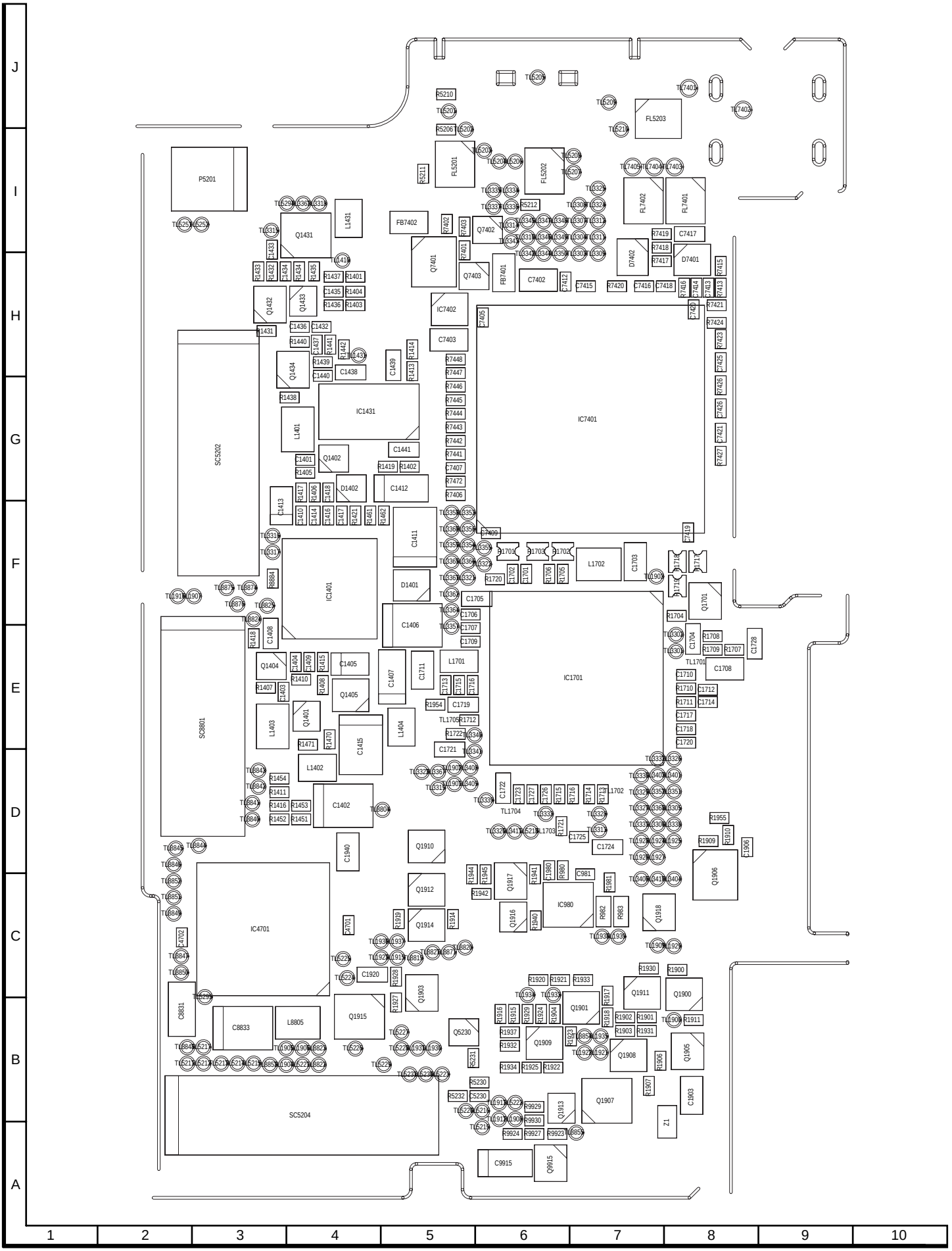
MAIN2 PWB Component Side SIDE A



MAIN2 PWB Wiring Side SIDE A



MAIN2 PWB Component Side SIDE B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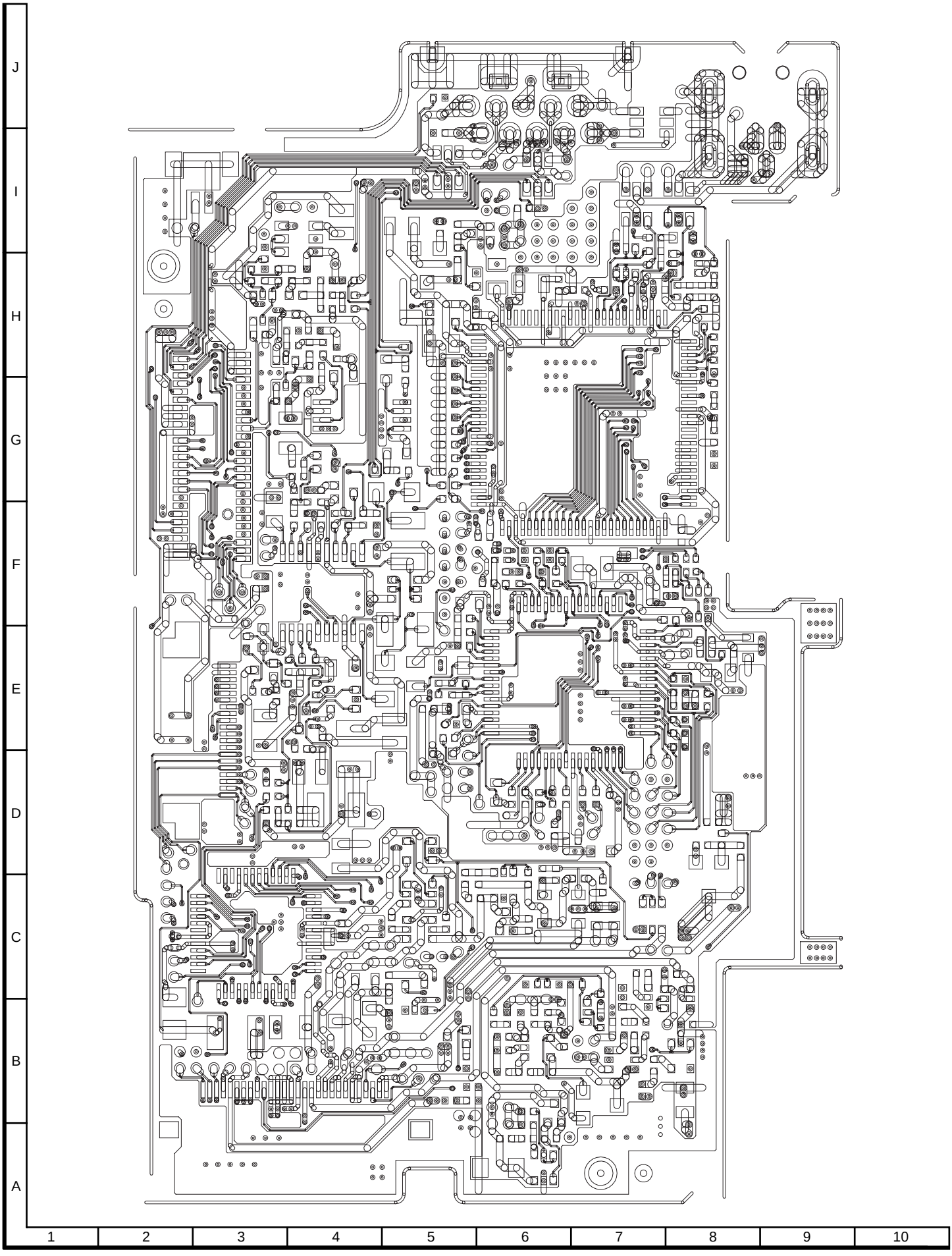
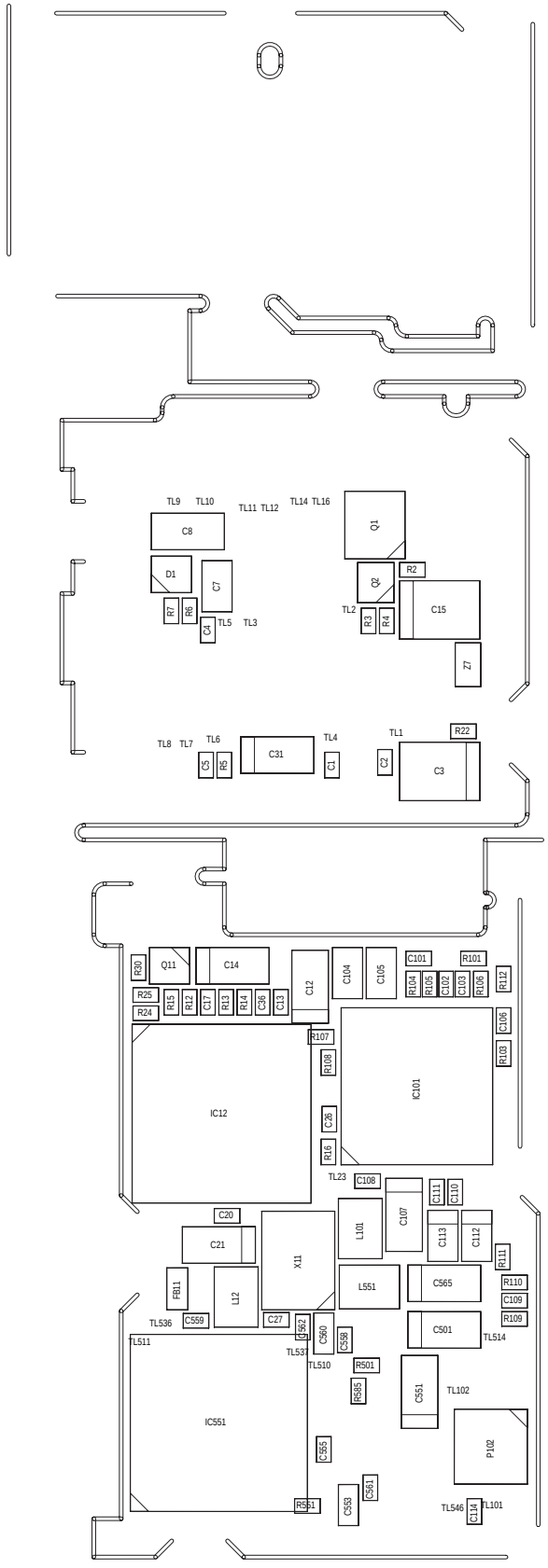
MAIN2 PWB Wiring Side SIDE B

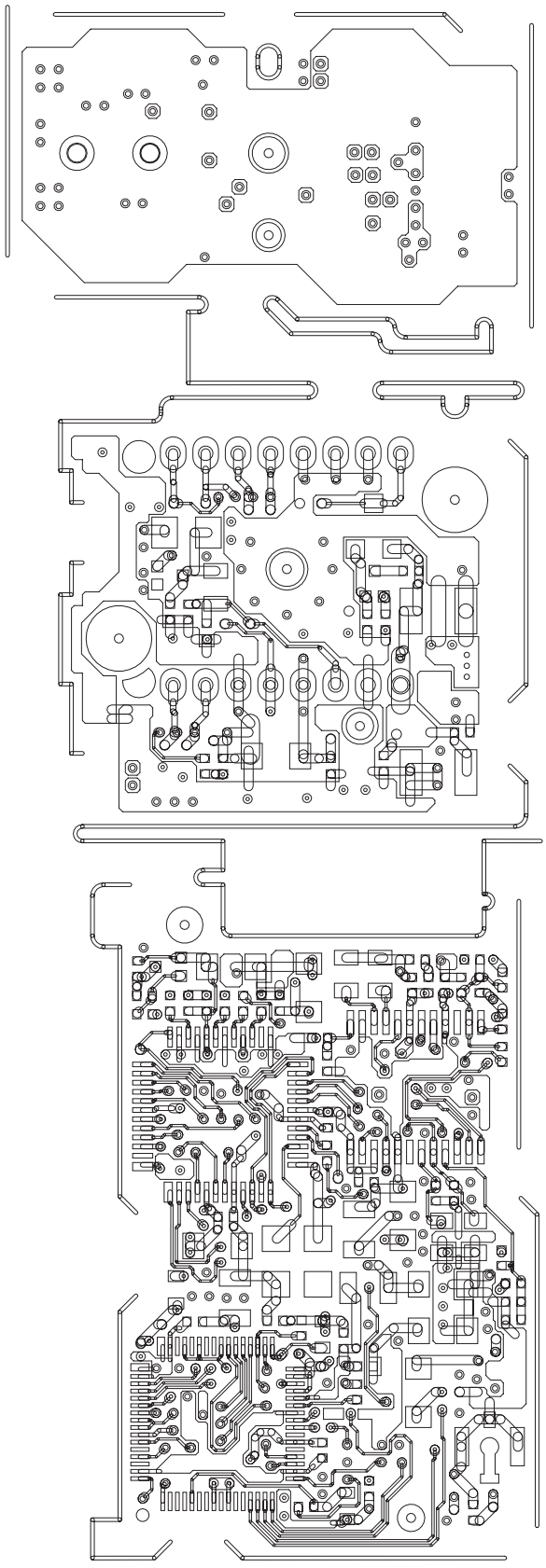


CAMERA HEAD PWB

Component Side SIDE A

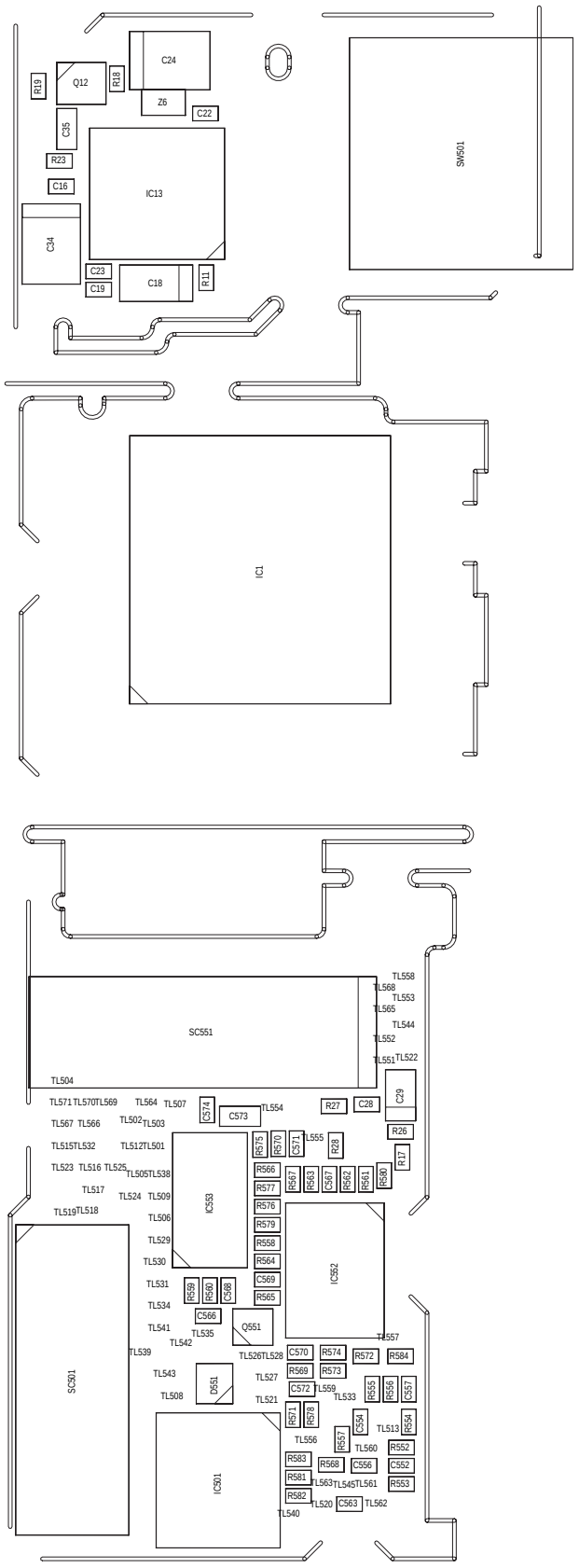


Wiring Side SIDE A

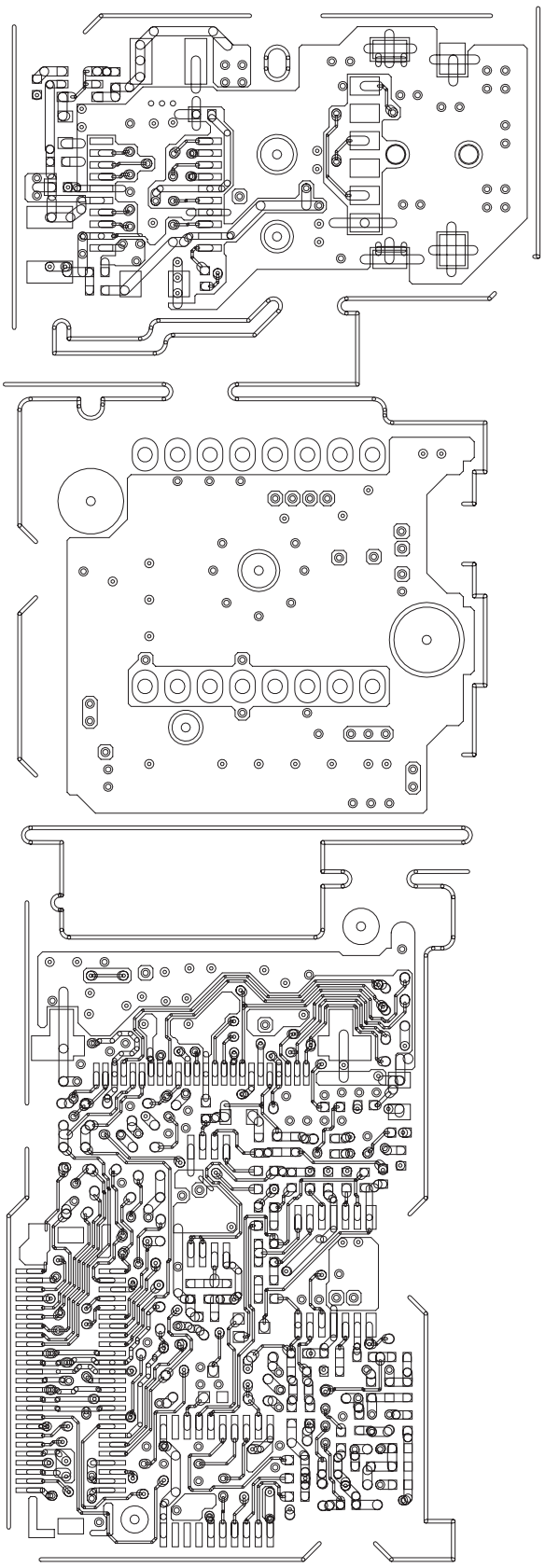


CAMERA HEAD PWB

Component Side SIDE B



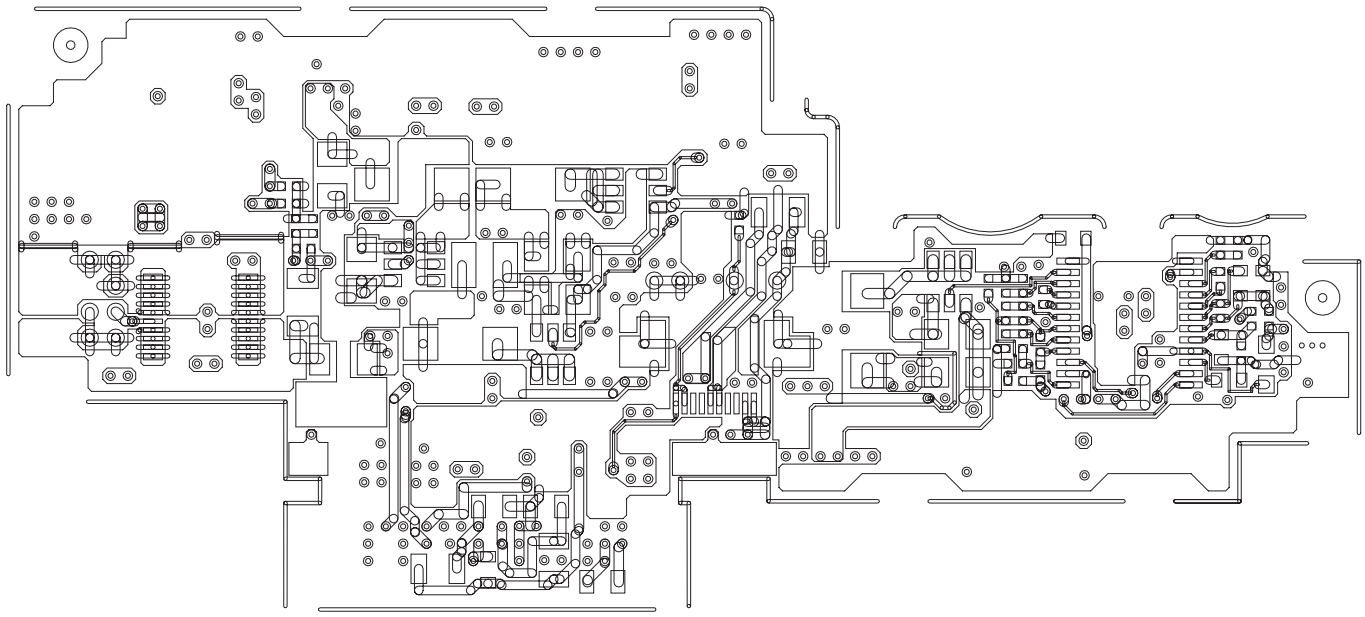
Wiring Side SIDE B



POWER2 PWB

Component Side SIDE A

Wiring Side SIDE A



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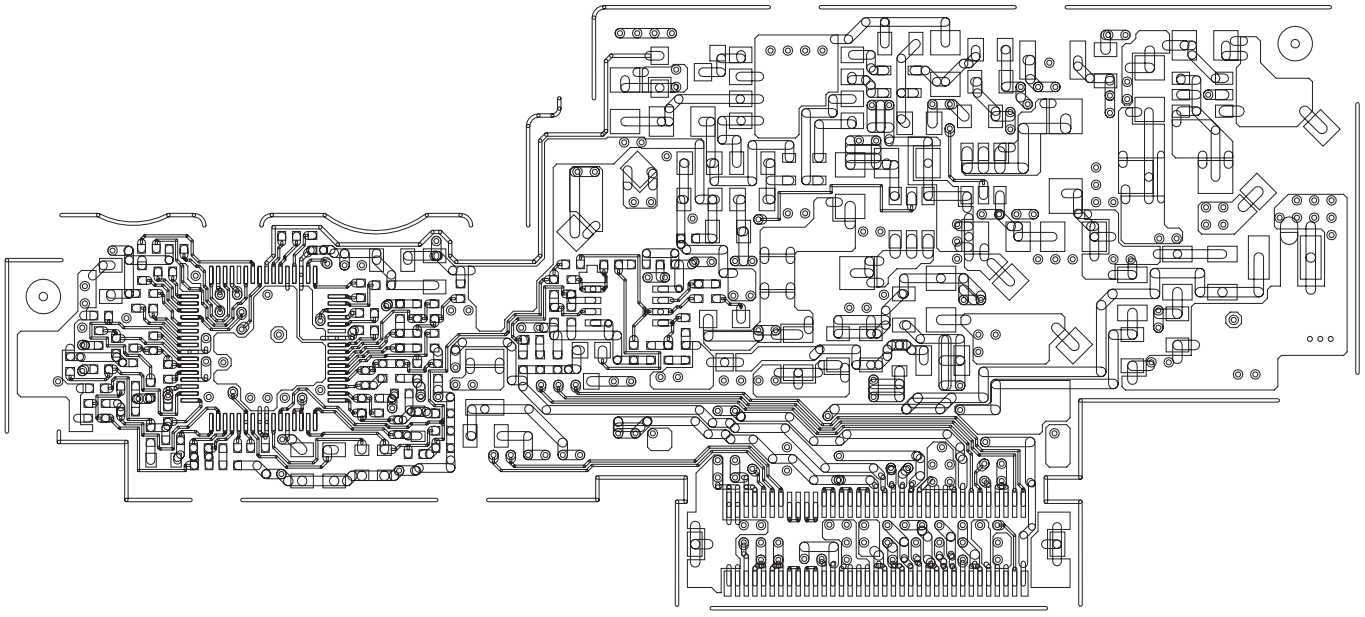
POWER2 PWB

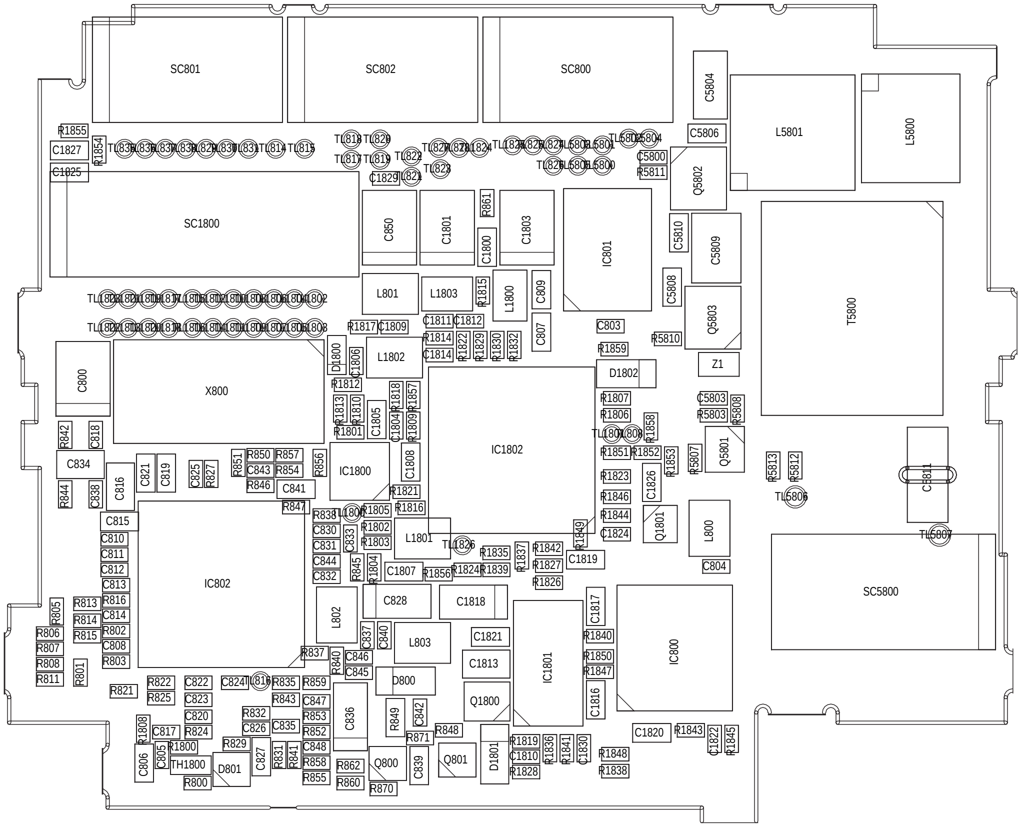
Component Side SIDE B

Wiring Side SIDE B



LCD PWB

Component Side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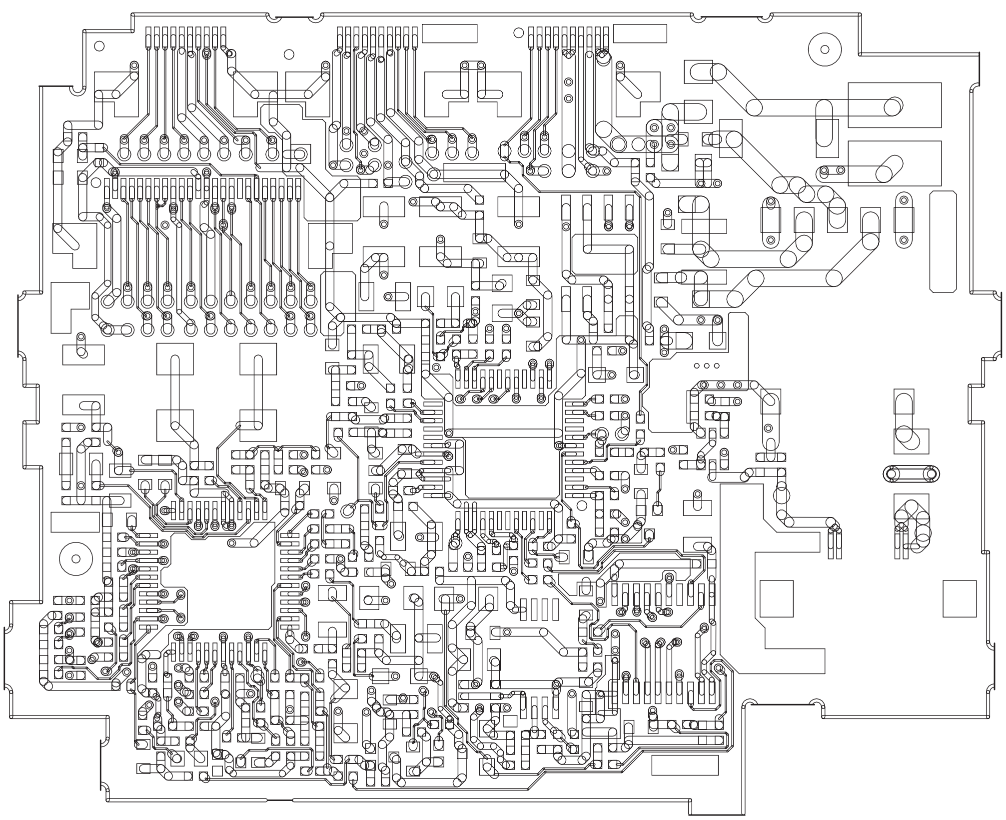
Wiring Side



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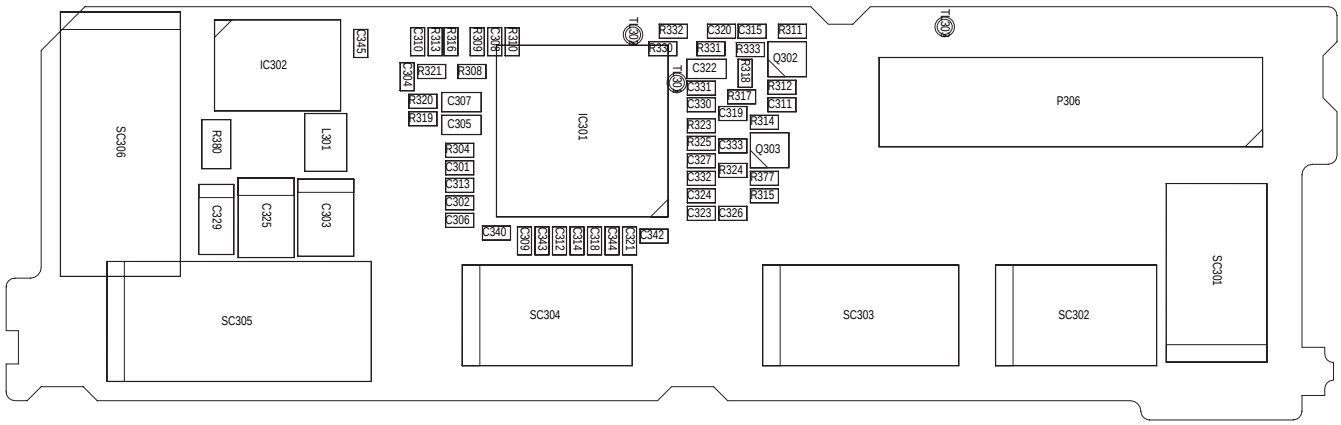
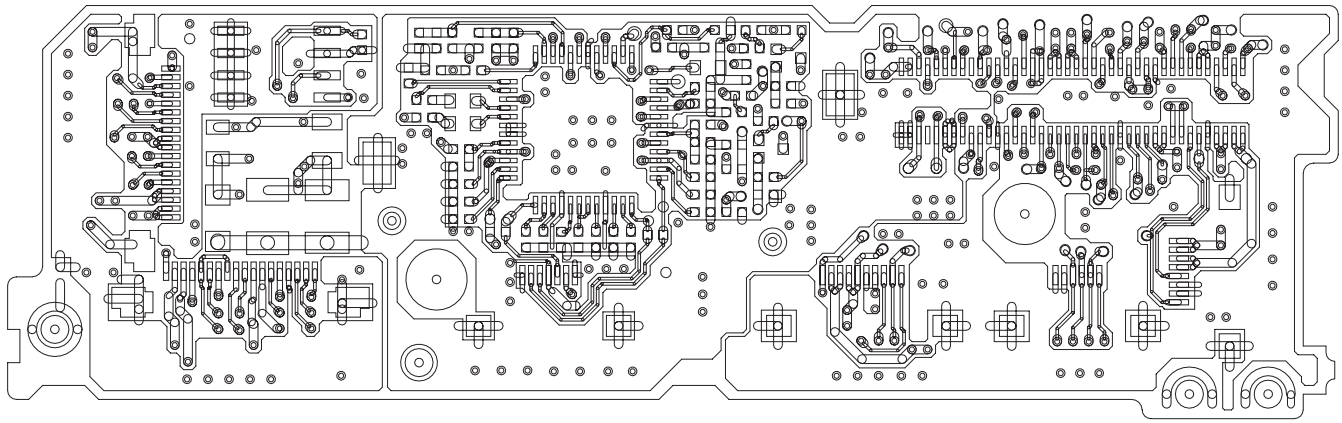
HEAD AMP PWB

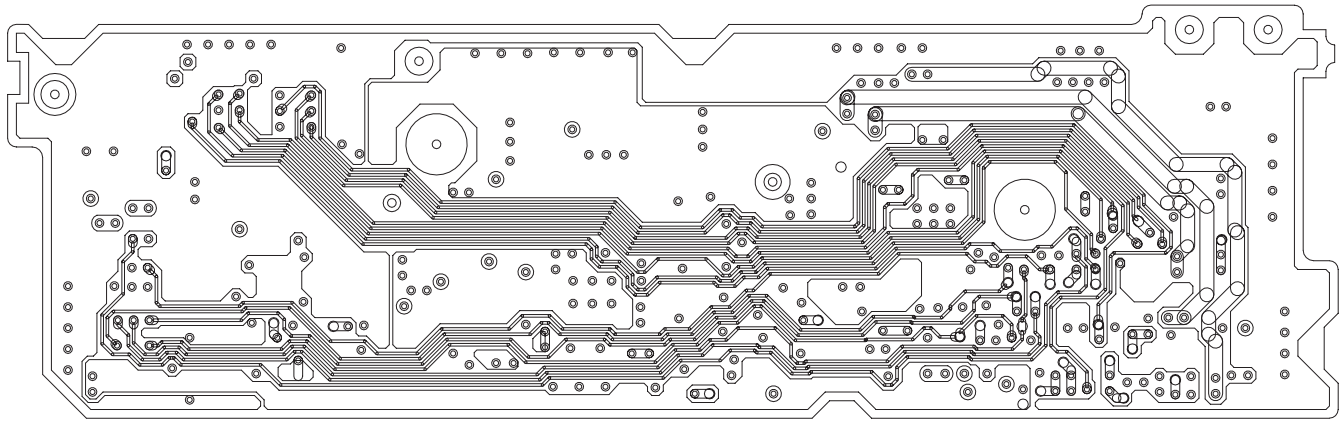
Component Side SIDE A



Wiring Side SIDE A



Wiring Side SIDE B



- M E M O -

16. REPLACEMENT PARTS LIST/ EXPLODED VIEWS

ELECTRICAL PARTS LIST

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

"HOW TO ORDER REPLACEMENT PARTS"

★MARK : SPARE PARTS-DELIVERY SECTION:ALL JAPAN

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER **2. REF. NO.**
3. PART NO. **4. DESCRIPTION**
5. PRICE CODE

⚠ MARK: SAFETY RELATED PARTS

PWB ASSEMBLY IS NOT REPLACEMENT ITEM

Ref. No.	Part No.	★	Description	Code

PRINTED WIRING BOARD ASSEMBLIES *(NOT REPLACEMENT ITEM)*

DUNTK2963PM01	MAIN1 PWB Unit (VL-PD3AS)	—
DUNTK2963PM02	MAIN1 PWB Unit (VL-PD3AH)	—
DUNTK2963PM03	MAIN1 PWB Unit (VL-PD3AE/AEW)	—
DUNTK2963PM04	MAIN1 PWB Unit (VL-PD3AEX)	—
DUNTK2964PM01	MAIN2 PWB Unit (VL-PD3AS)	—
DUNTK2964PM02	MAIN2 PWB Unit (VL-PD3AH)	—
DUNTK2964PM03	MAIN2 PWB Unit (VL-PD3AE/AEW)	—
DUNTK2964PM04	MAIN2 PWB Unit (VL-PD3AEX)	—
DUNTK2965QA01	CAMERA HEAD PWB Unit	—
DUNTK2966QA01	POWER2 PWB Unit	—
DUNTK2875QA04	LCD PWB Unit	—
RAMP-0033TAN1	Head Amp PWB Unit	—

TUNER AND ASSEMBLY UNITS

RUNTK0343TAZZ	Remote Control Receive Unit	AM
RUNTK0371TAZZ	JOINT PWB Unit	AS

DUNTK2963PM01(VL-PD3AS) DUNTK2963PM02(VL-PD3AH) DUNTK2963PM03(VL-PD3AE/AEW) DUNTK2963PM04(VL-PD3AEX) MAIN1 PWB UNIT

INTEGRATED CIRCUITS

IC151	VHiADS933Y/-1	ADS933Y, A/D Converter	AR
IC201	RH-iX0706TAZZ	IX0706TA, Digital Signal Process	BC
IC202	RH-iX0793TAZZ	IX0793TA, 16M-SDRAM	AX
IC401	VHiNJU7012F-1	NJU7012F, Amp	AE
IC405	VHiNJU7012F-1	NJU7012F, DC Amp	AE
IC407	RH-iX0793TAZZ	IX0793TA, Codec External Memory	AX
IC408	RH-iX0793TAZZ	IX0793TA, ECC External Memory	AX
IC452	RH-iX0710TAN1	IX0710TA, Codec/ECC/ PCM/CLK.Gen	BE
IC601	VHiBH7761KV-1	BH7761KV, Audio I/O	AS
IC602	VHiNJM2143R-1	NJM2143R, Amp	AE
IC701	RH-iX0835TAZZ	IX0835TA	AY
IC702	VHiM24C16W6-1	M24C16W6, E²PROM	AG
IC703	RH-iX0804TAZZ	IX0804TA	AM
IC704	VHiTC7W04U/-1	TC7W04U, Inverter	AD
IC751	VHiS84235F/-1	S84235F, Battery Backup/ Sys 3V Regulator	AL
IC1602	VHiPCM3006T-1	PCM3006T, 16bit ADC/DAC	AS
IC3701	RH-iX0819TAZZ	IX0819TA, Svart/Lens Control Micon	AX
IC4401	RH-iX0707TAZZ	IX0707TA, Digital ADC/DAC Decoder/Encoder	BC
IC4461	VHiTC4W53U/-1	TC4W53U, VCTL SW	AF
IC4471	VHiTC7S04U/-1	TC7S04U, Inverter	AE
IC5002	VHiLV4051AT-1	LV4051AT, Multi Plexer	AE

TRANSISTORS

Q601	VSFMG12////-1	FMG12	AD
Q602	VSRN4984///-1	RN4984	AC
Q603	VSHN1B04FU/-1	HN1B04FU	AC
Q604	VSHN2A01FU/-1	HN2A01FU	AC
Q605	VSRT1N441U/-1	RT1N441U	AB
Q606	VSRN4984///-1	RN4984	AC
Q701	VSUN9214///-1	UN9214	AB
Q702	VS2SA1989R/-1	2SA1989R	AB
Q4431	VSRN1704///-1	RN1704	AC
Q4432	VSHN2A01FU/-1	HN2A01FU	AC
Q4433	VSHN2A01FU/-1	HN2A01FU	AC
Q4434	VSHN2A01FU/-1	HN2A01FU	AC
Q4461	VSHN2A01FU/-1	HN2A01FU	AC
Q4462	VS2SC5383F/-1	2SC5383F	AB
Q4471	VSHN1B04FU/-1	HN1B04FU	AC
Q4472	VS2SA1989R/-1	2SA1989R	AB
Q4481	VSHN1B04FU/-1	HN1B04FU	AC
Q4482	VSHN1B04FU/-1	HN1B04FU	AC
Q5001	VSHN2C01FU/-1	HN2C01FU	AC
Q5002	VSHN2C01FU/-1	HN2C01FU	AC
Q5003	VSRT1N441U/-1	RT1N441U	AB
Q5004	VS3LN01S///-1	3LN01S	AC
Q5005	VSHN2C01FU/-1	HN2C01FU	AC
Q5006	VSRT1N441U/-1	RT1N441U	AB
Q5007	VS2SA1989R/-1	2SA1989R	AB
Q7800	VSHN2A01FU/-1	HN2A01FU	AC
Q7801	VSRN1704///-1	RN1704	AC
Q7820	VSHN1B04FU/-1	HN1B04FU	AC
Q7830	VSHN1B04FU/-1	HN1B04FU	AC
Q7860	VS2SA1989R/-1	2SA1989R	AB
Q7861	VS2SA1989R/-1	2SA1989R	AB
Q7862	VS2SA1989R/-1	2SA1989R	AB

DIODES

D403	VHDHVU362//-1	HVU362	AE
D404	VHDHVU362//-1	HVU362	AE
D471	VHDHVU362//-1	HVU362	AE
D472	VHDHVU359TR-1	HVU359TR	AE
D701	VHDDA221///-1	DA221	AB
D4451	VHDKV1812K/-1	KV1812K	AD
D4452	VHDKV1812K/-1	KV1812K	AD
D5001	VHDMA2S111/-1	MA2S111	AC
D5002	VHDMA132WK/-1	MA132WK	AA

PACKAGED CIRCUITS

X401	RCRSC0160TAZZ	Crystal, CRSC0160TA	AH
X701	RCRSC0032TAZZ	Crystal, CRSC0032TA	AG
X4451	RCRSC0167TAZZ	Crystal, CRSC0167TA	AM

COILS

FL403	RFiLC0164TAZZ	Filter, FiLC0164TA	AH
FL701	RFiLC0072TAZZ	Filter, FiLC0072TA	AE
FL3701	RFiLC0079TAZZ	Filter, FiLC0079TA	AE

Ref. No.	Part No.	★	Description	Code
L151	VPD9M100KR86N		Peaking, 10µH	AC
L201	VPBWM4R7MR30N		Peaking, 4.7µH	AC
L202	VPD9M100KR86N		Peaking, 10µH	AC
L203	VPBWM4R7MR30N		Peaking, 4.7µH	AC
L401	VPMAN100MR50N		Peaking, 10µH	AC
L402	VPMAN100MR50N		Peaking, 10µH	AC
L471	VPD9M8R2J2R0N		Peaking, 8.2µH	AC
L601	VPBWM330K2R1N		Peaking, 33µH	AC
L602	VPCBM220K1R3N		Peaking, 22µH	AC
L603	VPBUM100KR50N		Peaking, 10µH	AC
L701	VPMAN100MR50N		Peaking, 10µH	AC
L1601	VPMAN100MR50N		Peaking, 10µH	AC
L3701	VPMAN100MR50N		Peaking, 10µH	AC
L4401	VPCBM220K1R3N		Peaking, 22µH	AC
L4402	VPMAN100MR50N		Peaking, 10µH	AC
L4451	RCiLP0275TAZZ		Coil,CiLP0275TA	AD
L4461	VPCEM470M3R7N		Peaking, 47µH	AC
L4481	VPCEM470M3R7N		Peaking, 47µH	AC

CAPACITORS

C153	VCSATA0JJ106M		10	6.3V	Tantalum	AD
C154	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C155	VCSATA0JJ106M		10	6.3V	Tantalum	AD
C156	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C157	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C158	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C159	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C160	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C161	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C162	VCCCCZ1HH470J		47p	50V	Ceramic	AB
C163	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C164	VCSATA0JJ106M		10	6.3V	Tantalum	AD
C202	VCSATA0JJ106M		10	6.3V	Tantalum	AD
C203	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C204	VCSATA0JJ106M		10	6.3V	Tantalum	AD
C205	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C206	VCSATA0JJ106M		10	6.3V	Tantalum	AD
C207	VCSATA0JJ106M		10	6.3V	Tantalum	AD
C208	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C209	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C210	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C212	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C213	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C215	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C217	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C218	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C221	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C222	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C224	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C225	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C226	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C401	RC-KZ0083TAZZ		Capacitor			AD
C402	VCKYTV1CF225Z		2.2	16V	Ceramic	AC
C403	RC-KZ0083TAZZ		Capacitor			AD
C404	VCSATA1AJ475M		4.7	10V	Tantalum	AC
C405	VCKYCY1CB473K		0.047	16V	Ceramic	AA
C407	RC-KZ0083TAZZ		Capacitor			AD
C408	VCSATA0JJ106M		10	6.3V	Tantalum	AD
C409	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C411	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C413	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C414	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C417	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C418	VCCCCZ1HH7R0D		7p	50V	Ceramic	AB
C419	VCCCCZ1HH7R0D		7p	50V	Ceramic	AB
C422	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C424	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C428	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C429	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C433	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C435	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C442	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C444	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C447	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C448	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C449	RC-KZ0083TAZZ		Capacitor			AD
C450	RC-KZ0100TAZZ		Capacitor			AD
C451	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C452	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C456	VCSATA0JJ156M		15	6.3V	Tantalum	AC
C460	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C462	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C463	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C465	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C467	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C468	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C470	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C473	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C474	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C603	VCKYTV1CF225Z		2.2	16V	Ceramic	AC
C605	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C606	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C607	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C608	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C609	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C610	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C611	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C616	VCKYTV1CF225Z		2.2	16V	Ceramic	AC
C617	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C618	VCKYCY1CB473K		0.047	16V	Ceramic	AA
C619	VCKYCY1CB473K		0.047	16V	Ceramic	AA
C621	VCKYCY1HB681K		680p	50V	Ceramic	AA
C623	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C624	VCKYCZ1EB472K		4700p	25V	Ceramic	AB
C626	VCKYCY1HB681K		680p	50V	Ceramic	AA
C628	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C629	VCKYCZ1EB472K		4700p	25V	Ceramic	AB
C631	VCSATA1AJ475M		4.7	10V	Tantalum	AC
C632	VCSATA0JJ156M		15	6.3V	Tantalum	AC
C633	VCSATA0JJ156M		15	6.3V	Tantalum	AC
C634	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C635	VCSATE1AJ476M		47	10V	Tantalum	AD
C636	VCSATE1AJ476M		47	10V	Tantalum	AD
C637	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C638	VCSAPR1AJ475M		4.7	10V	Tantalum	AD
C639	VCSATA0JJ156M		15	6.3V	Tantalum	AC
C640	VCSATE1AJ476M		47	10V	Tantalum	AD
C641	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C642	VCSATE0JJ107M		100	6.3V	Tantalum	AE
C643	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C644	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C645	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C646	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C647	VCKYCY1CB473K		0.047	16V	Ceramic	AA
C648	VCKYCY1CB473K		0.047	16V	Ceramic	AA
C649	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C651	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C701	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C702	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C703	VCCCCZ1HH120J		12p	50V	Ceramic	AB
C704	VCCCCZ1HH150J		15p	50V	Ceramic	AB
C705	VCKYTV1AB105K		1	10V	Ceramic	AD
C706	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C707	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C708	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C709	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C710	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C711	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C712	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C713	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C714	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C715	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C751	VCKYCY1AF105Z		1	10V	Ceramic	AC
C752	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C753	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C754	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C755	VCSATA0JJ106M		10	6.3V	Tantalum	AD
C756	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C761	VCCCCZ1HH221J		220p	50V	Ceramic	AB
C762	VCCCCZ1HH221J		220p	50V	Ceramic	AB

Ref. No.	Part No.	★	Description	Code
C1601	VCSATA0JJ106M		10 6.3V Tantalum	AD
C1602	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1603	VCKYTV1AB105K		1 10V Ceramic	AD
C1604	VCKYTV1AB105K		1 10V Ceramic	AD
C1605	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1607	VCSATA0JJ106M		10 6.3V Tantalum	AD
C1608	VCSATA0JJ106M		10 6.3V Tantalum	AD
C1609	VCKYCZ1HB222K		2200p 50V Ceramic	AB
C1610	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1611	VCKYTV1CB224K		0.22 16V Ceramic	AB
C1612	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1613	VCSATA1AJ475M		4.7 10V Tantalum	AC
C1614	VCKYCZ1HB222K		2200p 50V Ceramic	AB
C1615	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1616	VCSATA1AJ475M		4.7 10V Tantalum	AC
C1617	VCKYTV1CB224K		0.22 16V Ceramic	AB
C3701	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C3702	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3703	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3705	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3707	VCKYTV1AB105K		1 10V Ceramic	AD
C3708	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3709	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C4401	RC-KZ0083TAZZ		Capacitor	AD
C4402	RC-KZ0083TAZZ		Capacitor	AD
C4403	RC-KZ0083TAZZ		Capacitor	AD
C4404	RC-KZ0083TAZZ		Capacitor	AD
C4405	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4406	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4410	RC-KZ0083TAZZ		Capacitor	AD
C4411	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4412	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4417	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4419	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4420	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4421	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4422	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4423	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4424	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4430	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4433	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4437	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4443	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4444	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4448	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C4449	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4451	VCCCCZ1HH270J		27p 50V Ceramic	AB
C4454	VCCCCZ1HH270J		27p 50V Ceramic	AB
C4461	VCSATA1AJ106M		10 10V Tantalum	AC
C4462	VCKYCZ1EB682K		6800p 25V Ceramic	AB
C4463	VCKYCZ1EB682K		6800p 25V Ceramic	AB
C4464	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4465	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C4466	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4481	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C4482	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C4485	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C5020	VCKYCY1CF104Z		0.1 16V Ceramic	AA
C7820	VCCCCZ1HH150J		15p 50V Ceramic	AB
C7821	VCCCCZ1HH680J		68p 50V Ceramic	AB
C7830	VCCCCZ1HH150J		15p 50V Ceramic	AB
C7831	VCCCCZ1HH680J		68p 50V Ceramic	AB
C7832	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C7833	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C7840	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C7841	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C7842	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C7843	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C7854	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C7856	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C7858	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C7860	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C7861	VCSAPR0JJ106M		10 6.3V Tantalum	AD

RESISTORS

Ref. No.	Part No.	★	Description	Code
R152	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R153	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R154	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R155	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R156	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R157	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R158	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R159	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R160	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R161	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R162	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R163	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R164	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R165	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R166	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R202	VRK-SB1FF473J		47k 0.0315W Metal Composition	AB
R203	VRK-SB1FF473J		47k 0.0315W Metal Composition	AB
R204	VRK-SB1FF473J		47k 0.0315W Metal Composition	AB
R214	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R215	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R226	VRK-SB1FF562J		5.6k 0.0315W Metal Composition	AC
R227	VRK-SB1FF562J		5.6k 0.0315W Metal Composition	AC
R240	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R241	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R242	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R243	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R244	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R245	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R246	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R247	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R401	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R402	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R403	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R404	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R405	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R406	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R407	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R410	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R411	VRS-CZ1JF154J		150k 1/16W Metal Oxide	AA
R412	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R413	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R416	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R417	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R418	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R428	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R431	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R432	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R435	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R436	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R437	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R438	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R440	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R441	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R442	VRS-CZ1JF114J		110k 1/16W Metal Oxide	AB
R443	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R446	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R453	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R454	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R462	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R467	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R468	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R469	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R470	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R471	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R476	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R477	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R478	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R603	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R609	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R610	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R613	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R614	VRK-SA1JF222J		2.2k 1/16W Metal Composition	AB
R616	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R617	VRK-SA1JF222J		2.2k 1/16W Metal Composition	AB
R621	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R623	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R626	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R627	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R628	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R629	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R630	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R632	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R634	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R635	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R636	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R638	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R639	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R640	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R641	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R647	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R651	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R652	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R653	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R654	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R655	VRK-SA1JF223J		22k 1/16W Metal Composition	AB
R656	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R660	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R661	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R662	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R663	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R664	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R666	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R667	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R668	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R669	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R670	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R671	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R672	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R673	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R674	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R675	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R676	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R701	VRK-SA1JF224J		220k 1/16W Metal Composition	AC
R704	VRS-CZ1JF824J		820k 1/16W Metal Oxide	AA
R706	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R707	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R708	VRS-CZ1JF106J		10M 1/16W Metal Oxide	AA
R710	VRS-CZ1JF474D		470k 1/16W Metal Oxide	AA
R711	VRS-CZ1JF823D		82k 1/16W Metal Oxide	AB
R712	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R713	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R714	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R715	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R716	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R717	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R718	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R719	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R721	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R722	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R723	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R724	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R725	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R726	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R727	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R728	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R729	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R730	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R731	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R732	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R733	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R734	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R735	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R736	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R737	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R738	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R739	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R740	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R741	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R742	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R743	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R744	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R751	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R752	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R753	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R754	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R761	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R763	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R1603	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R1604	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R1662	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R3701	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R3702	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3703	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R3704	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R3705	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3706	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3707	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3709	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R3710	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3711	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3712	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3713	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3714	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3715	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3716	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R4401	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R4402	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R4403	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R4404	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R4405	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R4406	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R4407	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R4408	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4412	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4413	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4414	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4420	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R4421	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R4422	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R4423	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R4424	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R4425	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R4431	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4432	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4435	VRS-CZ1JF330J		33 1/16W Metal Oxide	AA
R4436	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R4437	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R4438	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R4439	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R4451	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R4452	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R4453	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R4454	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R4456	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R4457	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4460	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4461	VRS-CZ1JF123D		12k 1/16W Metal Oxide	AA
R4462	VRS-CZ1JF123D		12k 1/16W Metal Oxide	AA
R4463	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R4464	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4465	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R4466	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4467	VRS-CZ1JF302D		3k 1/16W Metal Oxide	AA
R4468	VRS-CZ1JF562D		5.6k 1/16W Metal Oxide	AB
R4469	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R4473	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R4474	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R4475	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R4476	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R4477	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R4478	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4479	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4485	VRS-CZ1JF474J		470k 1/16W Metal Oxide	AA
R4486	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R4487	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R4488	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R4490	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4491	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4492	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4493	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4494	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4495	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4499	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R5001	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R5002	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R5003	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R5004	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R5005	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R5006	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R5007	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R5008	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R5009	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R5010	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R5011	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R5012	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R5013	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R5014	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R5015	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R5016	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R5017	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R5018	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R5020	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R5021	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R5022	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R5024	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R5025	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R5026	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R5027	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R5028	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R5032	VRS-CZ1JF184J		180k 1/16W Metal Oxide	AA
R5033	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R5034	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R5035	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R5036	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R5037	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R5038	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R5039	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R5040	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R5041	VRK-SA1JF000J		0 1/16W Metal Composition	AB
R5042	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R7800	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R7801	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R7803	VRS-CZ1JF330J		33 1/16W Metal Oxide	AA
R7820	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R7821	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R7822	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R7823	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R7830	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R7831	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R7832	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R7833	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R7840	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R7841	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R7842	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R7843	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R7844	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R7845	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R7860	VRS-CZ1JF330J		33 1/16W Metal Oxide	AA
R7861	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R7862	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R7863	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R7870	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R7871	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R7872	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R7873	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R7874	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R7875	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R7876	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7877	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7878	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7885	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

FB201	RBLN-0049TAZZ	Balun, BLN-0049TA	AD
FB456	RBLN-0057TAZZ	Balun, BLN-0057TA	AC
FB1001	RBLN-0028TAZZ	Balun, BLN-0028TA	AB
FB1002	RBLN-0028TAZZ	Balun, BLN-0028TA	AB
FB1003	RBLN-0028TAZZ	Balun, BLN-0028TA	AB
FB1004	RBLN-0028TAZZ	Balun, BLN-0028TA	AB
FB1005	RBLN-0028TAZZ	Balun, BLN-0028TA	AB
P601	QPLGN0374TAZZ	Plug, 3Pin	AC
P3701	QPLGN0376TAZZ	Plug, 3Pin	AD
SC3702	QSOCN0560TAZZ	Socket, 5Pin	AC
SC5001	QSOCN2072TAZZ	Socket, 20Pin	AD
SC5002	QSOCN5111TAN1	Socket, 51Pin	AH
SC5003	QSOCN2886TAZZ	Socket, 28Pin	AE
P1001	QCNCM5069TAZZ	Connector, 50Pin	AG
P5001	QCNCM9167TAZZ	Connector, 100Pin	AK

DUNTK2964PM01(VL-PD3AS)
DUNTK2964PM02(VL-PD3AH)
DUNTK2964PM03(VL-PD3AE/AEW)
DUNTK2964PM04(VL-PD3AEX)
MAIN2 PWB UNIT

INTEGRATED CIRCUITS

IC980	VHiTA75S01F-1	TA75S01F, Amp	AD
IC1401	VHiNJM2538B-1	NJM2538B, Video Out	AM
IC1431	VHiNJM2235V-1	NJM2235V, Video In SW	AE
IC1701	VHiLB11990W-1	LB11990W, Motor Driver	AR
IC3401	VHiBH7277KV-1	BH7277KV, EQ/PLL IC	AX
IC3402	VHiTLC2940/-1	TLC2940, VCO IC	AM
IC3403	VHiTCSZ04U/-1	TCSZ04U, Inv IC	AE
IC3404	VHiADC08351-1	ADC08351, A/D Conv IC	AN
IC3405	VHiTC4W53U/-1	TC4W53U, SW IC	AF
IC4701	VHiMB88344F-1	MB88344F, D/A Converter	AV
IC5201	VHiTC7W08U/-1	TC7W08U	AE
IC5202	VHiTC7W08U/-1	TC7W08U	AE
IC5203	VHiTC7W08U/-1	TC7W08U	AE
IC7401	RH-iX0748TAZZ	IX0748TA, IEEE 1394 Controler	BA
IC7402	VHiTC7S08U/-1	TC7S08U, Buffer	AE
IC7701	RH-iX0802TAZZ	IX0802TA, Mecha Control Micon	AV
IC7702	VHiNJM2143R-1	NJM2143R, Servo Error Amp	AE
IC8800	VHiCXA3503R-1	CXA3503R, VF RGB Decoder Controler	AX
IC8801	VHiSNT1G08C-1	SNT1G08C	AD

TRANSISTORS

Q1401	VSRT1N441U/-1	RT1N441U	AB
Q1405	VSRN1704///-1	RN1704	AC
Q1431	VSXN04391//-1	XN04391	AC
Q1434	VSHN1B04FU/-1	HN1B04FU	AC
Q1701	VSHN2C01FU/-1	HN2C01FU	AC
Q1900	VSRN4990///-1	RN4990	AC
Q1901	VS2SC4944Y/-1	2SC4944Y	AC
Q1902	VS2SA1989R/-1	2SA1989R	AB
Q1903	VSRN1704///-1	RN1704	AC
Q1904	VSFC117++++-1	FC117++++	AD
Q1905	VSRN1704///-1	RN1704	AC

Ref. No.	Part No.	★	Description	Code
Q1906	VSNDS332P//-1		NDS332P	AD
Q1907	VSCPH3109//-1		CPH3109	AD
Q1908	VSRN4984///-1		RN4984	AC
Q1909	VS2SC4944Y/-1		2SC4944Y	AC
Q1910	VSRN1704///-1		RN1704	AC
Q1911	VSRN4984///-1		RN4984	AC
Q1912	VSRN2904///-1		RN2904	AC
Q1913	VS2SC5383F/-1		2SC5383F	AB
Q1914	VSHN1C01FU/-1		HN1C01FU	AC
Q1915	VSFMMT717//-1		FMMT717	AE
Q1916	VS2SC5383F/-1		2SC5383F	AB
Q1917	VSHN2A01FU/-1		HN2A01FU	AC
Q1918	VSRN4984///-1		RN4984	AC
Q3401	VS2SC4627CD-1		2SC4627CD	AB
Q3403	VSHN2A01FU/-1		HN2A01FU	AC
Q3404	VS2SC4738Y/-1		2SC4738Y	AA
Q3405	VSRN1907///-1		RN1907	AC
Q3406	VSXP05534//-1		XP05534	AD
Q3407	VSXP05534//-1		XP05534	AD
Q5230	VS2SC5383F/-1		2SC5383F	AB
Q7401	VSCPH3206//-1		CPH3206	AD
Q7402	VSRT1N441U/-1		RT1N441U	AB
Q7403	VS2SC5383F/-1		2SC5383F	AB
Q9915	VSHN2A01FU/-1		HN2A01FU	AC
			DIODE	
D8800	VHDHVC359TR-1		HVC359TR	AD
			PACKAGED CIRCUITS	
TH3401	VHHT1682J44-1		Thermistor	AC
X7701	RCRSC0132TAZZ		Crystal, CRSC0132TA	AK
			COILS	
FL3401	RCiLF0375TAZZ		Coil, CiLF0375TA	AG
FL3402	RCiLF0375TAZZ		Coil, CiLF0375TA	AG
FL3403	RCiLF0397TAZZ		Coil, CiLF0397TA	AG
FL5201	RCiLF0391TAZZ		Coil, CiLF0391TA	AG
FL5202	RCiLF0391TAZZ		Coil, CiLF0391TA	AG
FL5203	RCiLF0399TAZZ		Coil, CiLF0399TA	AG
FL7401	RCiLF0391TAZZ		Coil, CiLF0391TA	AG
FL7402	RCiLF0391TAZZ		Coil, CiLF0391TA	AG
L1402	VPCBM470K2R4N		Peaking, 47µH	AC
L1404	VPCBM470K2R4N		Peaking, 47µH	AC
L1431	VPCBM470K2R4N		Peaking, 47µH	AC
L1701	VPMAN100MR50N		Peaking, 10µH	AC
L1702	VPBWM4R7MR30N		Peaking, 4.7µH	AC
L1903	VPBWM2R2MR20N		Peaking, 2.2µH	AC
L1904	VPBWM2R2MR20N		Peaking, 2.2µH	AC
L1905	VPBWM2R2MR20N		Peaking, 2.2µH	AC
L3401	RCiLP0276TAZZ		Coil, CiLP0276TA	AC
L3402	VPCBM4R7MR25N		Peaking, 4.7µH	AC
L3404	VPCBM4R7MR25N		Peaking, 4.7µH	AC
L3405	VPCBM4R7MR25N		Peaking, 4.7µH	AC
L7701	VPMAN100MR50N		Peaking, 10µH	AC
L8800	VPAWM100J2R6N		Peaking, 10µH	AC
L8801	VPAWM100J2R6N		Peaking, 10µH	AC
L8802	VPAWM100J2R6N		Peaking, 10µH	AC
L8803	VPAWM150J3R2N		Peaking, 15µH	AC
L8804	VPAWM100J2R6N		Peaking, 10µH	AC
L8805	VPAWM220J4R0N		Peaking, 22µH	AC
			CAPACITORS	
C981	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1402	VCSATE1AJ476M		47 10V Tantalum	AD
C1404	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C1405	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C1406	VCSATE0JJ107M		100 6.3V Tantalum	AE
C1407	VCSATA0JJ156M		15 6.3V Tantalum	AC
C1408	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C1409	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C1410	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C1411	VCSATE0JJ107M		100 6.3V Tantalum	AE
C1412	VCSATA0JJ156M		15 6.3V Tantalum	AC
C1413	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C1414	VCKYCZ1CB103K		0.01 16V Ceramic	AB

Ref. No.	Part No.	★	Description	Code
C1415	VCSATE1AJ476M		47 10V Tantalum	AD
C1416	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C1417	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1418	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C1438	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C1439	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C1440	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C1701	VCKYCZ1CB223K		0.022 16V Ceramic	AC
C1702	VCKYCZ1CB223K		0.022 16V Ceramic	AC
C1703	VCKYTV1AB105K		1 10V Ceramic	AD
C1704	VCKYCY1AF105Z		1 10V Ceramic	AC
C1705	VCKYCY1CB104K		0.1 16V Ceramic	AB
C1706	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1707	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1708	RC-KZ0083TAZZ		Capacitor	AD
C1709	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1710	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1711	VCKYTV1AB105K		1 10V Ceramic	AD
C1712	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1713	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C1714	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1715	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C1716	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C1717	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1718	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1719	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C1720	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1721	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C1722	VCKYCY1CB473K		0.047 16V Ceramic	AA
C1723	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C1724	VCKYCY1AF105Z		1 10V Ceramic	AC
C1725	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1726	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C1727	VCCCCZ1HH101J		100p 50V Ceramic	AB
C1728	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C1901	VCKYTV1EB104K		0.1 25V Ceramic	AB
C1903	RC-KZ0083TAZZ		Capacitor	AD
C1904	VCKYTV1AB105K		1 10V Ceramic	AD
C1905	RC-KZ0083TAZZ		Capacitor	AD
C1906	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C1908	VCSATA1EJ105M		1 25V Tantalum	AC
C1913	VCKYTV1EB104K		0.1 25V Ceramic	AB
C1940	VCKYTV1AB105K		1 10V Ceramic	AD
C1980	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C3401	VCCCCZ1HH220J		22p 50V Ceramic	AB
C3402	VCCCCZ1HH100D		10p 50V Ceramic	AB
C3403	VCCCCZ1HH560J		56p 50V Ceramic	AB
C3405	VCCCCZ1HH560J		56p 50V Ceramic	AB
C3406	VCKYCY0JB105K		1 6.3V Ceramic	AC
C3408	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3409	VCKYCZ1HB471K		470p 50V Ceramic	AB
C3410	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3411	VCKYCZ1HB471K		470p 50V Ceramic	AB
C3412	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3413	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3414	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3415	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3416	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3417	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3418	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3419	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3420	VCCCCZ1HH100D		10p 50V Ceramic	AB
C3421	VCCCCZ1HH121J		120p 50V Ceramic	AB
C3423	VCCCCZ1HH121J		120p 50V Ceramic	AB
C3424	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C3425	VCSATA0JJ336M		33 6.3V Tantalum	AD
C3426	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C3428	VCKYTV1CB224K		0.22 16V Ceramic	AB
C3429	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C3430	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3431	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C3432	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C3433	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C3434	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C3436	VCSATA0JJ336M		33 6.3V Tantalum	AD

Ref. No.	Part No.	★	Description			Code
C3440	VCCCCZ1HH150J		15p	50V	Ceramic	AB
C3441	VCCCCZ1HH820J		82p	50V	Ceramic	AB
C3442	VCCCCZ1HH820J		82p	50V	Ceramic	AB
C3443	VCCCCZ1HH150J		15p	50V	Ceramic	AB
C3444	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3452	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C3454	VCSATA1AJ106M		10	10V	Tantalum	AC
C3455	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C3456	VCSATA1AJ106M		10	10V	Tantalum	AC
C3457	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C3458	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3460	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3462	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C3465	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C3466	VCCCCZ1HH150J		15p	50V	Ceramic	AB
C3467	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C3470	VCCCCZ1HH5R0C		5p	50V	Ceramic	AC
C3471	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3473	VCSATE1AJ336M		33	10V	Tantalum	AG
C3474	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C3475	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3476	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3477	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3478	VCCCCZ1HH820J		82p	50V	Ceramic	AB
C3479	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3481	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C4701	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4702	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C5230	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7402	RC-KZ0071TAZZ		Capacitor			AD
C7403	RC-KZ0071TAZZ		Capacitor			AD
C7405	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7407	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C7409	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7412	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7413	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C7414	VCCCCZ1HH330J		33p	50V	Ceramic	AB
C7415	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7416	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7417	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C7418	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7419	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7420	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7421	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7425	VCCCCZ1HH101J		100p	50V	Ceramic	AB
C7426	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C7701	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7702	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7703	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C7704	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7705	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C7706	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7708	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C7709	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7710	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C7711	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C7712	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7713	VCKYCZ1EB682K		6800p	25V	Ceramic	AB
C7714	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C7715	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C8800	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C8801	VCSATA0JJ336M		33	6.3V	Tantalum	AD
C8802	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8803	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C8804	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8805	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8806	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8807	VCKYTV1CB105K		1	16V	Ceramic	AC
C8808	VCKYTQ1CB105K		1	16V	Ceramic	AC
C8809	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8810	VCCCCZ1HH330J		33p	50V	Ceramic	AB
C8811	VCCCCZ1HH330J		33p	50V	Ceramic	AB
C8812	VCCCCZ1HH330J		33p	50V	Ceramic	AB
C8813	VCKYTQ1CB105K		1	16V	Ceramic	AC
C8814	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8815	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C8816	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C8817	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C8818	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8819	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C8820	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C8821	VCCCCZ1HH270J		27p	50V	Ceramic	AB
C8822	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C8823	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8824	RC-KZ0055TAZZ		Capacitor			AD
C8825	VCKYCZ1HB332K		3300p	50V	Ceramic	AA
C8826	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C8828	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8829	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8831	VCKYTQ1CB105K		1	16V	Ceramic	AC
C8832	VCKYTQ1CB105K		1	16V	Ceramic	AC
C8880	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C9915	VCSATA1CJ106M		10	16V	Tantalum	AD

RESISTORS

R980	VRS-CZ1JF183D		18k	1/16W	Metal Oxide	AB
R982	VRS-CY1JFR22J		0.22	1/16W	Metal Oxide	AA
R983	VRS-CY1JFR22J		0.22	1/16W	Metal Oxide	AA
R1401	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R1402	VRS-CZ1JF470J		47	1/16W	Metal Oxide	AA
R1403	VRS-CZ1JF470J		47	1/16W	Metal Oxide	AA
R1404	VRS-CZ1JF270J		27	1/16W	Metal Oxide	AA
R1408	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R1411	VRS-CZ1JF183J		18k	1/16W	Metal Oxide	AA
R1413	VRS-CZ1JF470J		47	1/16W	Metal Oxide	AA
R1414	VRS-CZ1JF270J		27	1/16W	Metal Oxide	AA
R1415	VRS-CZ1JF225J		2.2M	1/16W	Metal Oxide	AA
R1416	VRS-CZ1JF183J		18k	1/16W	Metal Oxide	AA
R1417	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R1418	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R1419	VRS-CZ1JF270J		27	1/16W	Metal Oxide	AA
R1431	VRS-CZ1JF122J		1.2k	1/16W	Metal Oxide	AA
R1438	VRS-CZ1JF122J		1.2k	1/16W	Metal Oxide	AA
R1439	VRS-CZ1JF272J		2.7k	1/16W	Metal Oxide	AA
R1440	VRS-CZ1JF561J		560	1/16W	Metal Oxide	AA
R1441	VRS-CZ1JF561J		560	1/16W	Metal Oxide	AA
R1442	VRS-CZ1JF750J		75	1/16W	Metal Oxide	AA
R1451	VRS-CZ1JF473J		47k	1/16W	Metal Oxide	AA
R1452	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R1453	VRS-CZ1JF473J		47k	1/16W	Metal Oxide	AA
R1454	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R1462	VRS-CZ1JF104D		100k	1/16W	Metal Oxide	AB
R1470	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R1701	VRK-SA1JF100J		10	1/16W	Metal Composition	AB
R1702	VRK-SA1JF182J		1.8k	1/16W	Metal Composition	AC
R1703	VRK-SA1JF182J		1.8k	1/16W	Metal Composition	AC
R1704	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R1705	VRS-CZ1JF124J		120k	1/16W	Metal Oxide	AA
R1706	VRS-CZ1JF683J		68k	1/16W	Metal Oxide	AA
R1707	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R1708	VRS-CZ1JF1R0J		1	1/16W	Metal Oxide	AA
R1709	VRS-CZ1JF1R0J		1	1/16W	Metal Oxide	AA
R1710	VRS-CZ1JF1R0J		1	1/16W	Metal Oxide	AA
R1711	VRS-CZ1JF1R0J		1	1/16W	Metal Oxide	AA
R1712	VRS-CZ1JF105J		1M	1/16W	Metal Oxide	AA
R1713	VRS-CZ1JF331J		330	1/16W	Metal Oxide	AA
R1714	VRS-CZ1JF621J		620	1/16W	Metal Oxide	AA
R1715	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R1716	VRS-CZ1JF223J		22k	1/16W	Metal Oxide	AA
R1717	VRK-SA1JF330J		33	1/16W	Metal Composition	AB
R1718	VRK-SA1JF102J		1k	1/16W	Metal Composition	AB
R1719	VRK-SA1JF472J		4.7k	1/16W	Metal Composition	AD
R1720	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R1721	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R1722	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R1900	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1901	VRS-CZ1JF752D		7.5k 1/16W Metal Oxide	AA
R1902	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1903	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R1904	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R1905	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R1906	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R1907	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R1908	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R1909	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1910	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1911	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1914	VRS-CZ1JF124J		120k 1/16W Metal Oxide	AA
R1915	VRS-CZ1JF333D		33k 1/16W Metal Oxide	AB
R1916	VRS-CZ1JF222D		2.2k 1/16W Metal Oxide	AA
R1917	VRS-CZ1JF822D		8.2k 1/16W Metal Oxide	AA
R1918	VRS-CZ1JF682J		6.8k 1/16W Metal Oxide	AA
R1919	VRS-CZ1JF124J		120k 1/16W Metal Oxide	AA
R1920	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1922	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R1923	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R1925	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R1926	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1927	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R1928	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R1929	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1930	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R1931	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R1932	VRS-CZ1JF682J		6.8k 1/16W Metal Oxide	AA
R1934	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R1940	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1941	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1942	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R1944	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1945	VRS-CZ1JF123D		12k 1/16W Metal Oxide	AA
R1954	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1955	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1981	VRS-CZ1JF102D		1k 1/16W Metal Oxide	AA
R3401	VRS-CZ1JF121J		120 1/16W Metal Oxide	AA
R3402	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R3404	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R3406	VRS-CZ1JF271J		270 1/16W Metal Oxide	AA
R3407	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R3409	VRS-CZ1JF121J		120 1/16W Metal Oxide	AA
R3410	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R3411	VRS-CZ1JF391J		390 1/16W Metal Oxide	AA
R3412	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R3413	VRS-CZ1JF391J		390 1/16W Metal Oxide	AA
R3414	VRS-CZ1JF112J		1.1k 1/16W Metal Oxide	AA
R3415	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R3416	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R3417	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R3418	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R3419	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3420	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3421	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R3423	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R3424	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R3425	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R3426	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3427	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R3428	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R3429	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R3430	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R3432	VRS-CZ1JF333D		33k 1/16W Metal Oxide	AB
R3434	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3435	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R3436	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R3437	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3442	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3443	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3445	VRS-CZ1JF152D		1.5k 1/16W Metal Oxide	AB
R3446	VRS-CZ1JF822J		8.2k 1/16W Metal Oxide	AA
R3447	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3449	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R3450	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3451	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R3452	VRS-CZ1JF820J		82 1/16W Metal Oxide	AA
R3453	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3454	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3455	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3457	VRS-CZ1JF820J		82 1/16W Metal Oxide	AA
R3458	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3459	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3460	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3462	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3463	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R3464	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3465	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3468	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R3469	VRS-CZ1JF390J		39 1/16W Metal Oxide	AA
R3470	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R3471	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R3472	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3473	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3474	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3475	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3478	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R3479	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R3480	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R3481	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R3482	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R3486	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R3488	VRS-CZ1JF821D		820 1/16W Metal Oxide	AA
R3489	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3490	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R3492	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3493	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R3494	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R3495	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3496	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3497	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3498	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3499	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R5206	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R5210	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R5211	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R5212	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R5230	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R5231	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R5232	VRS-CZ1JF121J		120 1/16W Metal Oxide	AA
R7401	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R7402	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R7403	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R7406	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R7413	VRS-CZ1JF512D		5.1k 1/16W Metal Oxide	AA
R7415	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7416	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7417	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7418	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7419	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R7420	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R7421	VRS-CZ1JF472D		4.7k 1/16W Metal Oxide	AB
R7423	VRS-CZ1JF102D		1k 1/16W Metal Oxide	AA
R7424	VRS-CZ1JF472D		4.7k 1/16W Metal Oxide	AB
R7426	VRS-CZ1JF821D		820 1/16W Metal Oxide	AA
R7427	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R7441	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7442	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7443	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7444	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7445	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7446	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7447	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7448	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7472	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R7701	VRK-SB1FF104J		100k 0.0315W Metal Composition	AD

Ref. No.	Part No.	★	Description	Code
R7702	VRK-SB1FF102J		1k 0.0315W Metal Composition	AC
R7703	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R7704	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R7706	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R7707	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R7708	VRK-SA1JF103J		10k 1/16W Metal Composition	AB
R7709	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R7710	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R7711	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7712	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R7713	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R7714	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R7715	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R8802	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R8803	VRS-CZ1JF271J		270 1/16W Metal Oxide	AA
R8804	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R8805	VRS-CZ1JF333D		33k 1/16W Metal Oxide	AB
R8806	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R8807	VRS-CZ1JF392J		3.9k 1/16W Metal Oxide	AA
R8808	VRS-CZ1JF392J		3.9k 1/16W Metal Oxide	AA
R8809	VRS-CZ1JF392J		3.9k 1/16W Metal Oxide	AA
R8810	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R8811	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R8812	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R8813	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R8816	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R8817	VRK-SA1JF564J		560k 1/16W Metal Composition	AC
R8818	VRS-CZ1JF823D		82k 1/16W Metal Oxide	AB
R8819	VRS-CZ1JF274J		270k 1/16W Metal Oxide	AA
R8820	VRS-CZ1JF473D		47k 1/16W Metal Oxide	AB
R8822	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R8827	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R8846	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8847	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8848	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8849	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8850	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8851	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8852	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8853	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8854	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8855	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8856	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8857	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R8878	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R8879	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R8880	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R8881	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R8882	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R8884	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R8896	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R8897	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R8898	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R8899	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R9923	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R9924	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R9927	VRS-CZ1JF222D		2.2k 1/16W Metal Oxide	AA
R9929	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R9930	VRS-CZ1JF123D		12k 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

FB7401	RBLN-0057TAZZ	Balun, BLN-0057TA	AC
FB7402	RBLN-0057TAZZ	Balun, BLN-0057TA	AC
FB8800	RBLN-0119TAZZ	Balun, BLN-0119TA	AC
FB8802	RBLN-0119TAZZ	Balun, BLN-0119TA	AC
J5201	QJAKE0065TAZZ	Jack, 10Pin	AH
J7401	QJAKZ0072TAZZ	Jack, 4Pin	AG
P5201	QPLGN0276TAZZ	Plug, 2Pin	AD
SC3301	QCNCW8080TAZZ	Connector, 80Pin	AH
SC5201	QSOCN2071TAZZ	Socket, 20Pin	AD
SC5202	QSOCN5111TAN1	Socket, 51Pin	AH
SC5203	QCNCW9188TAZZ	Connector, 100Pin	AL
SC5204	QSOCN2806TAN1	Socket, 28Pin	AG
SC8801	QSOCN2092TAZZ	Socket, 20Pin	AE
P1900	QCNCM7069TAZZ	Connector, 70Pin	AH

DUNTK2965QA01
CAMERA HEAD PWB UNIT

INTEGRATED CIRCUITS

IC12	VHiLR38610/-1	LR38610, Timing Generator	AP
IC13	VHiUPD16510-1	UPD16510, V-Driver	AR
IC101	VHiCXA2096N-1	CXA2096N, CDS/AGC	AQ
IC501	VHiMB8346BV-1	MB8346BV, D/A-Converter	AN
IC551	VHiMM1449XQ-1	MM1449XQ, Lens Driver	AT
IC552	VHiNJM2902V-1	NJM2902V, Hall-Device Drive/Amp Iris Drive	AD
IC553	VHiNJM3414V-1	NJM3414V, Iris Drive	AF

TRANSISTORS

Q1	VS2SK508///-1	2SK508	AE
Q2	VS2SC4627CD-1	2SC4627CD	AB
Q11	VS2SC5383F/-1	2SC5383F	AB
Q12	VSHN2C01FU/-1	HN2C01FU	AC

DIODES

D1	VHDMC2852//-1	MC2852	AB
D551	VHDMC2852//-1	MC2852	AB

PACKAGED CIRCUIT

X11	RCRSZ0055TAZZ	Crystal, CRSZ0055TA	AS

COILS

L12	VPAWM100K1R5N	Peaking, 10µH	AC
L101	VPAWM100K1R5N	Peaking, 10µH	AC
L551	VPBWM150K1R0N	Peaking, 15µH	AC

CAPACITORS

C1	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C2	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C3	VCSATE1VJ335M	3.3	35V	Tantalum	AD
C4	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C5	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C7	VCKYTV1EB104K	0.1	25V	Ceramic	AB
C8	RC-KZ0072TAZZ	Capacitor			AC
C12	VCSATA1AJ106M	10	10V	Tantalum	AC
C13	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C14	VCSATA1AJ106M	10	10V	Tantalum	AC
C15	VCSATE1VJ335M	3.3	35V	Tantalum	AD
C16	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C17	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C18	VCSATA1CJ106M	10	16V	Tantalum	AD
C19	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C20	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C21	VCSATA0JJ156M	15	6.3V	Tantalum	AC
C22	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C23	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C24	VCSATE1VJ335M	3.3	35V	Tantalum	AD
C26	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C27	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C28	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C29	VCSAPR0JJ106M	10	6.3V	Tantalum	AD
C31	VCSATA1CJ106M	10	16V	Tantalum	AD
C34	VCSATE1VJ335M	3.3	35V	Tantalum	AD
C35	VCKYCY1EF104Z	0.1	25V	Ceramic	AA
C36	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C102	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C103	VCKYCZ1EF223Z	0.022	25V	Ceramic	AB
C104	VCKYTV1CB105K	1	16V	Ceramic	AC
C105	VCKYTV1CB105K	1	16V	Ceramic	AC
C106	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C107	VCSATA0JJ156M	15	6.3V	Tantalum	AC
C108	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C109	VCKYCZ1CB103K	0.01	16V	Ceramic	AB

Ref. No.	Part No.	★	Description	Code
C110	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C111	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C112	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C113	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C501	VCSATA1AJ106M		10 10V Tantalum	AC
C551	VCSATA1CJ106M		10 16V Tantalum	AD
C552	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C553	VCKYCY1EB183K		0.018 25V Ceramic	AA
C554	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C555	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C556	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C557	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C558	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C559	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C560	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C561	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C562	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C563	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C565	VCSATA1AJ106M		10 10V Tantalum	AC
C566	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C567	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C568	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C569	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C570	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C571	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C572	VCCCCZ1HH151J		150p 50V Ceramic	AB
C573	VCKYCY1AB224K		0.22 10V Ceramic	AB
C574	VCKYCZ1CB103K		0.01 16V Ceramic	AB

RESISTORS

R2	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA
R3	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R4	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R5	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R6	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R7	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R11	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R12	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R13	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R14	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R15	VRS-CZ1JF220J	22	1/16W Metal Oxide	AA
R16	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R17	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R18	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
R19	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA
R23	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R24	VRS-CZ1JF822J	8.2k	1/16W Metal Oxide	AA
R25	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA
R26	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R27	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R28	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R101	VRS-CZ1JF153D	15k	1/16W Metal Oxide	AB
R103	VRS-CZ1JF244D	240k	1/16W Metal Oxide	AA
R106	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R107	VRS-CZ1JF182J	1.8k	1/16W Metal Oxide	AA
R108	VRS-CZ1JF182J	1.8k	1/16W Metal Oxide	AA
R109	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R110	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R111	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA
R112	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R501	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R551	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R552	VRS-CZ1JF104D	100k	1/16W Metal Oxide	AB
R553	VRS-CZ1JF473D	47k	1/16W Metal Oxide	AB
R554	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R555	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R556	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R557	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R558	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R559	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R560	VRS-CZ1JF392J	3.9k	1/16W Metal Oxide	AA
R561	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R562	VRS-CZ1JF912J	9.1k	1/16W Metal Oxide	AB
R563	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R564	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R565	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R566	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA
R567	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R568	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R569	VRS-CZ1JF474J	470k	1/16W Metal Oxide	AA
R570	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R571	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R572	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R573	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R574	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R575	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R576	VRS-CZ1JF474J	470k	1/16W Metal Oxide	AA
R577	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R578	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R579	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R580	VRS-CZ1JF272D	2.7k	1/16W Metal Oxide	AB
R581	VRS-CZ1JF153D	15k	1/16W Metal Oxide	AB
R582	VRS-CZ1JF244D	240k	1/16W Metal Oxide	AA
R583	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R584	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R585	VRS-CZ1JF271J	270	1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

FB11	RBLN-0051TAZZ	Balun, BLN-0051TA	AC
SC501	QCNCW5068TAZZ	Connector, 50Pin	AG
SC551	QSOCN0203FJZZ	Socket, 24Pin	AE
SW501	QSW-P0095TAZZ	Switch, JOG SW	AH

DUNTK2966QA01
POWER2 PWB UNIT

INTEGRATED CIRCUITS

⚠	CP1	VHiCCP2B25/-1	CCP2B25	AD
⚠	CP2	VHiCCP2B25/-1	CCP2B25	AD
	IC901	VHiMB3825A/-1	MB3825A, Switching Control(Main)	AR
	IC902	VHiMB3788FV-1	MB3788FV, Switching Control(Sub)	AM
	IC9900	VHiNJM2143R-1	NJM2143R, 2.8V/2.4V Reg	AE

TRANSISTORS

Q900	VSCPH6701//-1	CPH6701	AE
Q901	VSCPH6701//-1	CPH6701	AE
Q902	VSCPH6701//-1	CPH6701	AE
Q906	VSCPH6701//-1	CPH6701	AE
Q909	VSCPH6701//-1	CPH6701	AE
Q910	VSCPH6701//-1	CPH6701	AE
Q911	VSCPH6701//-1	CPH6701	AE
Q913	VSCPH3109//-1	CPH3109	AD
Q9902	VS2SD1979S/-1	2SD1979S	AE
Q9903	VSFMMT717//-1	FMMT717	AE

DIODES

D901	RH-EX1394CEZZ	Zener, EX1394CE	AB
D913	VHDMA4S159/-1	MA4S159	AC
D914	VHDMA4S159/-1	MA4S159	AC

COILS AND TRANSFORMER

L910	RCiLP0323TAZZ	Coil, CiLP0323TA	AD
L911	RCiLP0311TAZZ	Coil, CiLP0311TA	AE
L912	RCiLP0311TAZZ	Coil, CiLP0311TA	AE
L913	VPBWM2R2MR20N	Peaking, 2.2µH	AC
L915	RCiLP0311TAZZ	Coil, CiLP0311TA	AE
L916	VPBAM2R2M090N	Peaking, 2.2µH	AC
L917	VPM6N100MR75N	Peaking, 10µH	AC
L918	VPM6N100MR75N	Peaking, 10µH	AC
L919	VPM6N100MR75N	Peaking, 10µH	AC
L920	VPM6N100MR75N	Peaking, 10µH	AC
L921	RCiLP0323TAZZ	Coil,CiLP0323TA	AD
L922	RCiLP0313TAZZ	Coil,CiLP0313TA	AE
L923	RCiLP0313TAZZ	Coil,CiLP0313TA	AE
L924	RCiLP0311TAZZ	Coil,CiLP0311TA	AE

Ref. No.	Part No.	★	Description	Code
L925	VPBAM2R2M090N		Peaking, 2.2µH	AC
L926	RCiLP0323TAZZ		Coil,CiLP0323TA	AD
L927	RCiLP0311TAZZ		Coil,CiLP0311TA	AE
L9901	VPBWM2R2MR20N		Peaking, 2.2µH	AC
L9902	VPBWM2R2MR20N		Peaking, 2.2µH	AC
L9904	VPBWM4R7MR30N		Peaking, 4.7µH	AC
L9905	VPBWM4R7MR30N		Peaking, 4.7µH	AC
L9906	VPBWM4R7MR30N		Peaking, 4.7µH	AC
L9907	VPBWM2R2MR20N		Peaking, 2.2µH	AC
L9908	VPBWM2R2MR20N		Peaking, 2.2µH	AC
⚠ T910	RTRNZ0160TAZZ		Power Transformer	AF

CAPACITORS

C900	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C901	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C902	VCKYCY1CB473K		0.047	16V	Ceramic	AA
C903	VCKYCZ1HB332K		3300p	50V	Ceramic	AA
C904	VCKYTV1AB105K		1	10V	Ceramic	AD
C905	VCKYCZ1HB222K		2200p	50V	Ceramic	AB
C906	VCCCCZ1HH101J		100p	50V	Ceramic	AB
C907	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C908	VCKYTV1AB105K		1	10V	Ceramic	AD
C909	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C910	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C911	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C912	VCKYTV1AB105K		1	10V	Ceramic	AD
C913	VCKYTV1AB105K		1	10V	Ceramic	AD
C914	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C915	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C916	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C917	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C918	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C919	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C920	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C921	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C922	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C923	VCKYTV1AB105K		1	10V	Ceramic	AD
C925	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C926	VCKYCY1AF105Z		1	10V	Ceramic	AC
C927	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C928	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C929	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C930	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C931	VCKYCY1EB223K		0.022	25V	Ceramic	AA
C932	VCKYCZ1HB471K		470p	50V	Ceramic	AB
C933	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C934	VCKYCY1EB223K		0.022	25V	Ceramic	AA
C935	RC-KZ0044TAZZ		Capacitor			AD
C936	RC-KZ0075TAZZ		Capacitor			AC
C937	VCKYTV1AB105K		1	10V	Ceramic	AD
C938	RC-KZ0070TAZZ		Capacitor			AD
C939	RC-KZ0099TAZZ		Capacitor			AD
C940	VCKYTV1AB105K		1	10V	Ceramic	AD
C941	RC-KZ0044TAZZ		Capacitor			AD
C942	RC-KZ0075TAZZ		Capacitor			AC
C943	RC-KZ0072TAZZ		Capacitor			AC
C944	VCKYTV1EB104K		0.1	25V	Ceramic	AB
C945	VCKYTV1AB105K		1	10V	Ceramic	AD
C946	VCKYTV1CF105Z		1	16V	Ceramic	AB
C947	RC-KZ0070TAZZ		Capacitor			AD
C948	VCKYTV1CB105K		1	16V	Ceramic	AC
C949	VCKYTV1CF105Z		1	16V	Ceramic	AB
C950	RC-KZ0072TAZZ		Capacitor			AC
C951	VCKYTV1EB104K		0.1	25V	Ceramic	AB
C952	RC-KZ0070TAZZ		Capacitor			AD
C953	RC-KZ0069TAZZ		Capacitor			AE
C954	RC-KZ0070TAZZ		Capacitor			AD
C955	VCKYTV1AB105K		1	10V	Ceramic	AD
C956	RC-KZ0044TAZZ		Capacitor			AD
C957	RC-KZ0075TAZZ		Capacitor			AC
C958	RC-KZ0075TAZZ		Capacitor			AC
C959	RC-KZ0044TAZZ		Capacitor			AD
C960	RC-KZ0070TAZZ		Capacitor			AD
C961	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C980	VCKYCZ1HB102K		1000p	50V	Ceramic	AB

Ref. No.	Part No.	★	Description	Code
C9901	VCKYTV1AB105K		1 10V Ceramic	AD
C9903	RC-KZ0083TAZZ		Capacitor	AD
C9906	VCKYTV1AB105K		1 10V Ceramic	AD
C9907	VCKYTV1AB105K		1 10V Ceramic	AD
C9908	VCKYTV1AB105K		1 10V Ceramic	AD
C9909	VCKYTV1AB105K		1 10V Ceramic	AD
C9910	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C9919	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C9920	VCSATE1AJ476M		47 10V Tantalum	AD
C9921	RC-KZ0083TAZZ		Capacitor	AD

RESISTORS

R900	VRS-CZ1JF104D		100k	1/16W	Metal Oxide	AB
R901	VRS-CZ1JF433D		43k	1/16W	Metal Oxide	AA
R902	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R903	VRS-CZ1JF472J		4.7k	1/16W	Metal Oxide	AA
R904	VRS-CZ1JF153J		15k	1/16W	Metal Oxide	AA
R905	VRS-CZ1JF273J		27k	1/16W	Metal Oxide	AA
R906	VRS-CZ1JF333J		33k	1/16W	Metal Oxide	AA
R907	VRS-CZ1JF333J		33k	1/16W	Metal Oxide	AA
R908	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R909	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R910	VRS-CZ1JF562J		5.6k	1/16W	Metal Oxide	AA
R911	VRS-CZ1JF104D		100k	1/16W	Metal Oxide	AB
R912	VRS-CZ1JF105J		1M	1/16W	Metal Oxide	AA
R913	VRS-CZ1JF822J		8.2k	1/16W	Metal Oxide	AA
R914	VRS-CZ1JF333J		33k	1/16W	Metal Oxide	AA
R915	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R916	VRS-CZ1JF332J		3.3k	1/16W	Metal Oxide	AA
R917	VRS-CZ1JF683J		68k	1/16W	Metal Oxide	AA
R918	VRS-CZ1JF113D		11k	1/16W	Metal Oxide	AA
R919	VRS-CZ1JF272D		2.7k	1/16W	Metal Oxide	AB
R920	VRS-CZ1JF153J		15k	1/16W	Metal Oxide	AA
R921	VRS-CZ1JF105J		1M	1/16W	Metal Oxide	AA
R922	VRS-CZ1JF123D		12k	1/16W	Metal Oxide	AA
R923	VRS-CZ1JF182D		1.8k	1/16W	Metal Oxide	AB
R924	VRS-CZ1JF473D		47k	1/16W	Metal Oxide	AB
R925	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R926	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R927	VRS-CZ1JF104D		100k	1/16W	Metal Oxide	AB
R928	VRS-TV1JD000J		0	1/16W	Metal Oxide	AA
R929	VRS-CZ1JF273D		27k	1/16W	Metal Oxide	AA
R931	VRS-CZ1JF105J		1M	1/16W	Metal Oxide	AA
R932	VRS-CZ1JF123J		12k	1/16W	Metal Oxide	AA
R933	VRS-CZ1JF105J		1M	1/16W	Metal Oxide	AA
R934	VRS-CZ1JF223D		22k	1/16W	Metal Oxide	AB
R935	VRS-CZ1JF105J		1M	1/16W	Metal Oxide	AA
R936	VRS-CZ1JF682D		6.8k	1/16W	Metal Oxide	AB
R937	VRS-CZ1JF752D		7.5k	1/16W	Metal Oxide	AA
R938	VRS-CZ1JF153J		15k	1/16W	Metal Oxide	AA
R939	VRS-CZ1JF471D		470	1/16W	Metal Oxide	AA
R940	VRS-CZ1JF471D		470	1/16W	Metal Oxide	AA
R941	VRS-CZ1JF104D		100k	1/16W	Metal Oxide	AB
R942	VRS-CZ1JF103D		10k	1/16W	Metal Oxide	AB
R943	VRS-CZ1JF104D		100k	1/16W	Metal Oxide	AB
R944	VRS-CZ1JF103D		10k	1/16W	Metal Oxide	AB
R947	VRS-CZ1JF183D		18k	1/16W	Metal Oxide	AB
R948	VRS-CZ1JF272D		2.7k	1/16W	Metal Oxide	AB
R950	VRS-CZ1JF223D		22k	1/16W	Metal Oxide	AB
R951	VRS-CZ1JF331J		330	1/16W	Metal Oxide	AA
R952	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R953	VRS-CZ1JF474J		470k	1/16W	Metal Oxide	AA
R954	VRS-CZ1JF104J		100k	1/16W	Metal Oxide	AA
R956	VRS-CZ1JF563D		56k	1/16W	Metal Oxide	AA
R957	VRS-CZ1JF273D		27k	1/16W	Metal Oxide	AA
R958	VRS-CZ1JF391J		390	1/16W	Metal Oxide	AA
R959	VRS-CZ1JF103D		10k	1/16W	Metal Oxide	AB
R9903	VRS-CZ1JF273D		27k	1/16W	Metal Oxide	AA
R9904	VRS-CZ1JF561J		560	1/16W	Metal Oxide	AA
R9905	VRS-CZ1JF272D		2.7k	1/16W	Metal Oxide	AB
R9906	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R9908	VRS-CZ1JF103D		10k	1/16W	Metal Oxide	AB
R9909	VRS-CZ1JF333D		33k	1/16W	Metal Oxide	AB
R9910	VRS-CZ1JF331J		330	1/16W	Metal Oxide	AA
R9912	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R9913	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R9915	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
	MISCELLANEOUS PARTS			
	PSLDM9140TAZZ		Shield	AD
FB9900	RBLN-0119TAZZ		Balun, BLN-0119TA	AC
FB9901	RBLN-0119TAZZ		Balun, BLN-0119TA	AC
SC900	QCNCW2080TAZZ		Connector, 20Pin	AF
SC901	QSOCN1092TAZZ		Socket, 10Pin	AD
SC902	QCNCW7068TAZZ		Connector, 70Pin	AG

DUNTK2875QA04 LCD PWB UNIT

	INTEGRATED CIRCUITS			
IC800	VHiMB8346BV-1		MB8346BV, DAC	AN
IC801	VHiM24C02W6-1		M24C02W6, E²PROM	AF
IC802	VHiiR3Y29AM-1		IR3Y29AM, LCD Decoder	AV
IC1800	VHiNJM2107F-1		NJM2107F, AFC LPF	AE
IC1801	VHiNJM4565V-1		NJM4565V, Common Amp	AF
IC1802	VHiLZ9GH23/-1		LZ9GH23, LCD Controler	AP
	TRANSISTORS			
Q800	VS2SA1989R/-1		2SA1989R	AB
Q801	VS2SA1989R/-1		2SA1989R	AB
Q1800	VSHN1B04FU/-1		HN1B04FU	AC
Q5801	VSHN1B04FU/-1		HN1B04FU	AC
Q5802	VSCPH3209//-1		CPH3209	AD
Q5803	VSCPH3209//-1		CPH3209	AD
	DIODES			
D800	VHDHVU17TRF-1		HVU17TRF	AE
D801	VHDMA132K//-1		MA132K	AA
D1800	VHDHVC359TR-1		HVC359TR	AD
D1801	RH-EX1397CEZZ		Zener, EX1397CE	AB
	PACKAGED CIRCUITS			
TH1800	VHHT1103K44-1		Thermistor	AD
X800	RCRSC0152TAZZ		Crystal, CRSC0152TA	AH
	COILS AND TRANSFORMER			
L800	VPBWM470K2R6N		Peaking, 47µH	AC
L801	VPBWM470K2R6N		Peaking, 47µH	AC
L803	VPD9M680J8R6N		Peaking, 68µH	AC
L1800	VPBSM100KR70N		Peaking, 10µH	AC
L1801	VPD9M1R2JR66N		Peaking, 1.2µH	AC
L1802	VPD9M100J1R7N		Peaking, 10µH	AC
L1803	VPBSM100KR70N		Peaking, 10µH	AC
L5800	RCiLP0226TAZZ		Coil, CiLP0226TA	AE
L5801	RCiLP0287TAZZ		Coil, CiLP0287TA	AD
⚠ T5800	RTRNZ0142TAZZ		Power Transformer	AN
	CAPACITORS			
C800	VCSATE1CJ226M		22 16V Tantalum	AE
C803	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C804	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C806	VCKYCY0JB105K		1 6.3V Ceramic	AC
C807	VCKYCY1CF104Z		0.1 16V Ceramic	AA
C808	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C809	VCKYCY0JB105K		1 6.3V Ceramic	AC
C810	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C811	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C812	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C813	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C814	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C815	VCKYCY0JB105K		1 6.3V Ceramic	AC
C816	VCKYTV1AB105K		1 10V Ceramic	AD
C817	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C818	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C819	VCKYCY0JB105K		1 6.3V Ceramic	AC
C820	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C821	VCKYCY0JB105K		1 6.3V Ceramic	AC
C822	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C823	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C824	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C825	VCCCCZ1HH6R0D		6p 50V Ceramic	AA
C826	VCKYCZ1EB682K		6800p 25V Ceramic	AB
C828	VCSATA1AJ335M		3.3 10V Tantalum	AC
C830	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C831	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C832	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C833	VCCCCZ1HH390J		39p 50V Ceramic	AB
C834	VCKYTV1CB474K		0.47 16V Ceramic	AC
C835	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C836	VCSATN1AJ106M		10 10V Tantalum	AD
C837	VCCCCZ1HH560J		56p 50V Ceramic	AB
C838	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C839	VCKYCY0JB105K		1 6.3V Ceramic	AC
C841	VCKYCY1CF334Z		0.33 16V Ceramic	AA
C842	VCKYCZ1HB681K		680p 50V Ceramic	AB
C844	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C847	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C848	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C850	VCSATE1AJ336M		33 10V Tantalum	AG
C1800	VCKYCY1CF104Z		0.1 16V Ceramic	AA
C1801	VCSATE1AJ336M		33 10V Tantalum	AG
C1803	VCSATE1CJ226M		22 16V Tantalum	AE
C1804	VCKYCZ1HB561K		560p 50V Ceramic	AC
C1805	VCKYCY1CF104Z		0.1 16V Ceramic	AA
C1806	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C1807	VCKYCY1CF104Z		0.1 16V Ceramic	AA
C1808	VCKYCY0JB105K		1 6.3V Ceramic	AC
C1809	VCCCCZ1HH680J		68p 50V Ceramic	AB
C1810	VCCCCZ1HH8R0D		8p 50V Ceramic	AB
C1811	VCCCCZ1HH220J		22p 50V Ceramic	AB
C1812	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C1813	VCKYTV1CB105K		1 16V Ceramic	AC
C1814	VCCCCZ1HH560J		56p 50V Ceramic	AB
C1816	VCKYCY1CF104Z		0.1 16V Ceramic	AA
C1817	VCKYCY0JB105K		1 6.3V Ceramic	AC
C1818	VCSATA1DJ475M		4.7 20V Tantalum	AC
C1819	VCKYCY1CF224Z		0.22 16V Ceramic	AA
C1820	VCKYCY1CF104Z		0.1 16V Ceramic	AA
C1821	VCKYCY0JB105K		1 6.3V Ceramic	AC
C1822	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C1824	VCCCCZ1HH101J		100p 50V Ceramic	AB
C1825	VCKYCY1CF104Z		0.1 16V Ceramic	AA
C1827	VCKYCY1CF104Z		0.1 16V Ceramic	AA
C1829	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C1830	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C5800	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C5803	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C5804	RC-KZ0055TAZZ		Capacitor	AD
C5806	VCKYCY1HB332K		3300p 50V Ceramic	AA
C5809	VCFRED1HM183J		0.018 50V	AD
C5811	RC-KZ0350CEZZ		Capacitor	AD
	RESISTORS			
R800	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R801	VRS-CZ1JF304D		300k 1/16W Metal Oxide	AA
R802	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R803	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R805	VRS-CZ1JF363D		36k 1/16W Metal Oxide	AA
R806	VRS-CZ1JF563D		56k 1/16W Metal Oxide	AA
R807	VRS-CZ1JF473D		47k 1/16W Metal Oxide	AB
R808	VRS-CZ1JF393D		39k 1/16W Metal Oxide	AB
R811	VRS-CZ1JF392J		3.9k 1/16W Metal Oxide	AA
R813	VRS-CZ1JF563D		56k 1/16W Metal Oxide	AA
R814	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R815	VRS-CZ1JF333D		33k 1/16W Metal Oxide	AB
R816	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R821	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R822	VRS-CZ1JF124D		120k 1/16W Metal Oxide	AA
R824	VRS-CZ1JF223D		22k 1/16W Metal Oxide	AB
R825	VRS-CZ1JF163D		16k 1/16W Metal Oxide	AA
R827	VRS-CZ1JF122D		1.2k 1/16W Metal Oxide	AB
R829	VRS-CZ1JF183D		18k 1/16W Metal Oxide	AB

Ref. No.	Part No.	★	Description	Code
R832	VRS-CZ1JF184J		180k 1/16W Metal Oxide	AA
R835	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R838	VRS-CZ1JF562D		5.6k 1/16W Metal Oxide	AB
R841	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R842	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R843	VRS-CZ1JF393D		39k 1/16W Metal Oxide	AB
R844	VRS-CZ1JF822J		8.2k 1/16W Metal Oxide	AA
R845	VRS-CZ1JF223D		22k 1/16W Metal Oxide	AB
R846	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R847	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R849	VRS-CY1JF106J		10M 1/16W Metal Oxide	AA
R850	VRS-CZ1JF274J		270k 1/16W Metal Oxide	AA
R852	VRS-CZ1JF363D		36k 1/16W Metal Oxide	AA
R853	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R854	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R855	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R857	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R858	VRS-CZ1JF393D		39k 1/16W Metal Oxide	AB
R859	VRS-CZ1JF683D		68k 1/16W Metal Oxide	AB
R860	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R861	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R862	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R870	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R871	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R1800	VRS-CZ1JF562D		5.6k 1/16W Metal Oxide	AB
R1801	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R1802	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R1803	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R1804	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R1805	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R1806	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1807	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1808	VRS-CZ1JF272D		2.7k 1/16W Metal Oxide	AB
R1809	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1810	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R1812	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R1813	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1814	VRS-CZ1JF564J		560k 1/16W Metal Oxide	AA
R1815	VRS-CZ1JF564J		560k 1/16W Metal Oxide	AA
R1816	VRS-CZ1JF470J		47 1/16W Metal Oxide	AA
R1817	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1818	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R1819	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R1822	VRS-CZ1JF821J		820 1/16W Metal Oxide	AA
R1823	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1824	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1826	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R1827	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R1828	VRS-CZ1JF823D		82k 1/16W Metal Oxide	AB
R1830	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R1832	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R1835	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1836	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R1837	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1838	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R1840	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R1841	VRS-CZ1JF474J		470k 1/16W Metal Oxide	AA
R1842	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1843	VRS-CZ1JF512J		5.1k 1/16W Metal Oxide	AB
R1844	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R1845	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1846	VRS-CZ1JF363D		36k 1/16W Metal Oxide	AA
R1847	VRS-CZ1JF564J		560k 1/16W Metal Oxide	AA
R1848	VRS-CZ1JF124J		120k 1/16W Metal Oxide	AA
R1849	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1850	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R1854	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R1855	VRS-CZ1JF183D		18k 1/16W Metal Oxide	AB
R1856	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R1857	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R1858	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1859	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R5803	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R5807	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R5808	VRS-CZ1JF182D		1.8k 1/16W Metal Oxide	AB
R5810	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R5811	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R5812	VRS-CZ1JF271D		270 1/16W Metal Oxide	AB
R5813	VRS-CZ1JF271D		270 1/16W Metal Oxide	AB

MISCELLANEOUS PARTS

SC800	QSOCN1092TAZZ	Socket, 10Pin	AD
SC801	QSOCN1092TAZZ	Socket, 10Pin	AD
SC802	QSOCN1092TAZZ	Socket, 10Pin	AD
SC1800	QSOCN2492TAZZ	Socket, 24Pin	AE
SC5800	QSOCN0412TAN1	Socket, 4Pin	AF

RAMP-0033TAN1
HEAD AMP PWB UNIT

INTEGRATED CIRCUITS

IC301	VHiBH7275KV-1	BH7275KV, REC PB Amp IC	AU
IC302	VHiM24C04W6-1	M24C04W6, E²PROM IC	AE

TRANSISTORS

Q302	VS2SC4738Y/-1	2SC4738Y	AA
	or		
	VS2SC4617B/-1	2SC4617B	AA
	or		
	VS2SC5383F/-1	2SC5383F	AB
Q303	VS2SC4738Y/-1	2SC4738Y	AA
	or		
	VS2SC4617B/-1	2SC4617B	AA
	or		
	VS2SC5383F/-1	2SC5383F	AB

COIL

L301	VPAWM4R7MR70N	Coil, 4.7µH	AC

CAPACITORS

C301	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C302	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C303	VCSATE1AJ336M	33	10V	Tantalum	AG
C304	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C305	VCCCCY1HH331J	330p	50V	Ceramic	AA
C306	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C307	VCCCCY1HH331J	330p	50V	Ceramic	AA
C308	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C309	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C310	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C311	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C312	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C313	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C314	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C315	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C318	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C319	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C320	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C321	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C322	VCKYCY0JB105K	1	22V	Ceramic	AC
C323	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C324	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C327	VCKYCZ1EB472K	4700p	25V	Ceramic	AB
C329	VCSATA1AJ106M	10	10V	Tantalum	AC
C330	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C331	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C332	VCKYCZ1EB472K	4700p	25V	Ceramic	AB
C333	VCKYCZ1CB822K	8200p	16V	Ceramic	AB
C340	VCCCCZ1HH5R0C	10p	50V	Ceramic	AC
C342	VCCCCZ1HH5R0C	10p	50V	Ceramic	AC
C343	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C344	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C345	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB

RESISTORS

R304	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R308	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R309	VRS-CZ1JF512J		5.1k 1/16W Metal Oxide	AB
R310	VRS-CZ1JF433J		43k 1/16W Metal Oxide	AA
R311	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R312	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R313	VRS-CZ1JF822J		8.2k 1/16W Metal Oxide	AA
R314	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R315	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R316	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R317	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R318	VRS-CZ1JF513J		51k 1/16W Metal Oxide	AA
R319	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R320	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R321	VRS-CZ1JF682J		6.8k 1/16W Metal Oxide	AA
R324	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R330	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R332	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R333	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R377	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R380	VRS-TV1JD100J		10 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

P306	QCNCM8082TAZZ	Plug, 80Pin	AK
SC301	QSOCN0806TAN1	Connector, 8Pin	AL
SC302	QSOCN0606TAN1	Connector, 6Pin	AK
SC303	QSOCN1006TAN1	Connector, 10Pin	AE
SC304	QSOCN0706TAN1	Connector, 7Pin	AE
SC305	QSOCN1887TAZZ	Connector, 18Pin	AD
SC306	QSOCN1886TAZZ	Connector, 18Pin	AD

RUNTK0371TAZZ
JOINT PWB UNIT

MISCELLANEOUS PARTS

P2006	QPLGN0276TAZZ	Plug, 2Pin	AD
P2008	QPLGN0376TAZZ	Plug, 3Pin	AD
P2009	QPLGN0276TAZZ	Plug, 2Pin	AD
P2010	QPLGN0476TAZZ	Plug, 4Pin	AD
SC2001	QSOCN2887TAZZ	Socket, 28Pin	AE
SC2002	QSOCN2887TAZZ	Socket, 28Pin	AE
SC2003	QSOCN1087TAZZ	Socket, 10Pin	AC
SC2004	QSOCN1087TAZZ	Socket, 10Pin	AC
SC2005	QSOCN1087TAZZ	Socket, 10Pin	AC
SC2007	QSOCN0560TAZZ	Socket, 5Pin	AC
SC2011	QCNCW1481TAZZ	Socket, 14Pin	AE
SW2001	QSW-M0047GEZZ	Switch, LCD SW	AE
	99GK161R002	Li-BAT(+)	AC
	99GHUSC063	Li-BAT(-)	AC
TP2001	QLUGP0111TAFW	Tip	AA
TP2002	QLUGP0111TAFW	Tip	AA
TP2003	QLUGP0111TAFW	Tip	AA

Ref. No.	Part No.	★	Description	Code

MECHANISM PARTS

301	LCHSM0167GEZZ	Main Chassis Ass'y	AQ
302	MLEVF0501GEFW	Eject Lever	AD
303	MLEVF0502GEFW	Pinch Control Lever	AD
304	NGERH3050GEFW	Main Cam	AD
305	MLEVF0503GEZZ	Shifter Drive Lever Ass'y	AE
306	MLEVF0505GEFW	Loading Lever	AD
307	MARMM0130GEZZ	S Loading Arm Ass'y	AF
308	MARMM0131GEZZ	Tu Loading Arm Ass'y	AF
309	MLEVF0508GEFW	T Arm Control Lever	AD
310	MLEVF0509GEFW	AHC Control Lever	AC
311	LANGG9106GEFW	Tu Guide Cam	AD
312	LANGF9016GEZZ	Intermediate Gear ANG Ass'y	AG
313	MARMM0132GEZZ	Swing Arm Ass'y	AG
314	LANGJ0040GEFW	Mechanism Fixing Angle	AH
320	CANGQ1044GE02	Down SW-ANG Ass'y	AP
321	LANGQ1044GEZZ	Down SW-ANG Ass'y	AE
322	QPWBH5781GEZZ	Dew Sensor FPC	AH
323	QSW-M0016TAZZ	Down SW	AD
324	RDTCH0039GEZZ	Dew Sensor	AD
325	ZTAPEZ212010M	Dew FPC Stopper	AB
326	LANGG9109GEFW	Cap FPC Stopper	AC
330	CCHSS0047GE02	Slide Chassis Ass'y with FPC Sensor	AZ
331	LCHSS0047GEZZ	Slide Chassis Ass'y	AQ
332	CPWBH5782GE01	Sensor FPC Ass'y	AX
333	QPWBH5782GEZZ	Sensor FPC	AN
334	LHLDP1174GEZZ	S-LED Holder	AC
335	LHLDP1175GEZZ	Tu-LED Holder	AC
336	PGiDM0157GEZZ	Lid Opener	AB
337	LHLDZ2023GEZZ	Sensor FPC Guide	AB
338	QSW-M0047GEZZ	Recognition SW	AE
339	QTANZ0003GEZZ	Mic Contact	AE
340	RH-PX0180TAZZ	Cassette LED	AE
341	RH-PX0181TAZZ	S/E Sensor	AF
342	RDTCM0002TAZZ	Reel Sensor	AE
343	PSHEP0015GEZZ	Sensor FPC Reinforcing Plate	AB
351	MLEVF0510GEZZ	Tension Arm Ass'y	AG
352	MLEVF0511GEZZ	Tu Guide Arm Ass'y	AG
353	MLEVF0512GEZZ	Brake Shifter Ass'y	AE
354	LBNDK3022GEZZ	Tension Band Ass'y	AF
355	LANGA0073GEZZ	Reel Cover Ass'y	AG
356	LANGJ0038GEFW	T Spring Hanging ANG	AC
357	MLEVP0302GEZZ	Swing Arm Release Lever	AC
361	MLEVP0296GEZZ	Pinch Drive Lever	AB
362	PGiDM0156GEZZ	Guide Rail	AC
364	NGERH1300GEZZ	Intermediate Gear A Ass'y	AE
365	NGERH1301GEZZ	Intermediate Gear B Ass'y	AB
366	NPLYV0164GEZZ	Intermediate Pulley Ass'y	AC
367	NPLYV0165GEZZ	Center Pulley Ass'y	AC
368	PCOVP1024GEZZ	Down SW Cover	AB
369	NGERH1302GEZZ	AHC Cam	AB
370	NGERH1303GEZZ	Coupling Gear	AB
371	NGERH1304GEZZ	Sub Cam	AC
372	NGERH1305GEZZ	S Loading Gear	AC
373	NGERH1306GEZZ	Tu Loading Gear	AC
374	MLEVP0308GEZZ	S Main Brake	AB
375	MLEVP0309GEZZ	Tu Main Brake	AB
376	LHLDX1033GEZZ	S Cassette Stay	AB
377	LHLDZ2024GEZZ	FPC Cover	AB
378	PGiDM0166GEZZ	SL Chassis Holder-S	AC
379	PGiDM0167GEZZ	Lock Lever Guide	AC
381	PGiDP0031GEFW	Tu Pole	AD
382	PGiDS0046GEFW	T Roller Upper Flange	AE
383	PGiDS0047GEFW	T Roller Bottom Flange	AE
384	NSFTL0761GEFW	T Roller Inner	AE
385	PGiDP0042GEFW	S Guide Sleeve	AD
386	PGiDM0170GEZZ	Slide Chassis Guide	AC
390	MSPRD0184GEFJ	Swing Arm Release SPR.	AC
391	MSPRT0417GEFJ	Main Brake SPR.	AB
392	MSPRT0418GEFJ	T Arm SPR.	AB

Ref. No.	Part No.	★	Description	Code
393	MSPRD0178GEFJ		Tu Guide Arm SPR.	AB
394	MSPRD0179GEFJ		Pinch Lever Return SPR.	AB
395	MSPRD0180GEFJ		S Pressure SPR.	AB
396	MSPRD0181GEFJ		Tu Pressure SPR.	AB
397	MSPRC0220GEFJ		Guide Adjustment SPR.	AA
398	MSPRC0221GEFJ		Drum Fixing SPR.	AA
399	MSPRP0185GEZZ		PB Guide SPR.	AC
401	LX-WZ1071GE02		CW ø 0.7 ø 1.8t0.1	AC
402	LX-WZ1104GE06		CW ø 0.7 ø 2.2t0.25	AB
403	LX-WZ1029GE00		CW ø 1.2 ø 3t0.25	AA
411	LZ-WZ1105GE00		W ø 1.2 ø 2.5t0.13	AA
412	LZ-WZ1106GE00		W ø 1.2 ø 2.5t0.2	AA
413	XWHJZ12-03025		W ø 1.2 ø 2.5t0.3	AA
414	XWHJZ12-04025		W ø 1.2 ø 2.5t0.4	AA
415	XWHJZ12-05025		W ø 1.2 ø 2.5t0.5	AA
420	LX-BZ3202GEFF		Swing Arm Release Lever Fixing Screw	AC
421	LHLDZ2025GEZZ		Intermediate Gear Stopper	AB
428	LX-NZ0102GEFW		S Guide Hexagon Nut	AC
429	LX-BZ3203GEFF		Type 1 Minuteness Screw M1.4 x L1	AB
430	LX-BZ3185GEFN		Screw M1.4 x L2	AB
431	LX-BZ3135GEFF		Screw M1.4 x L1	AA
432	LX-BZ3201GEFF		Special Head Screw M1.4 x L2	AB
433	LX-BZ3132GEFF		Special Head Screw M1.4 x L1.5	AA
434	LX-BZ3131GEFN		Screw M1.4 x L1.6	AA
435	LX-HZ3089GEFF		S Tight Screw M1.4 x L2	AA
436	LX-HZ3076GEFF		S Tight Screw M1.4 x L3	AA
437	LX-HZ3088GEFF		L Motor Installation Screw	AB
438	LX-BZ3225GEFF		Drum Installation Screw	AC
439	LX-BZ3181GEFN		GR Lock Screw	AD
440	LX-HZ3084GEFF		S Tight Screw M1.4 x L4	AC
441	QPWBH5780GEZZ		Mode FPC	AE
451	LPOLM0065GEZZ		Sup Pole Base Ass'y	AK
452	LPOLM0066GEZZ		Tu Pole Base Ass'y	AK
453	CGiDM0158GE01		Drum Base Ass'y	AN
454	NROLM0046GEZZ		Guide Roller Ass'y	AM
455	NROLM0045GEZZ		T Roller Ass'y	AK
456	NDAiV1076GEZZ		S Reel Base Ass'y	AM
457	NDAiV1077GEZZ		Tu Reel Base Ass'y	AK
458	MLEVF0526GEZZ		Pinch Lever Ass'y	AP
459	NBLTT0016GEZZ		Drive Belt	AD
461	RMOTM1080GEZZ		L Motor Ass'y	AQ
462	RMOTV1023GEZZ		Capstan Motor	AY
463	QSW-R0039GEZZ		Mode SW	AE
470	DDRMV0069GE02		Drum Ass'y	BZ
500	RAMP-0033TAN1		Head Amp PWB Unit	—
501	PSLDM3338TAFW		H/A FPC Shield Plate	AC

CASSETTE CONTROL PARTS

Ref. No.	Part No.	★	Description	Code
600	CHLDX3080GE08		Cassette Control Ass'y	AY
601	LHLDX3080GEZZ		Housing Ass'y	AW
604	CLEVF0524GE01		Top Cover Ass'y	AT
606	LANGF9647GEZZ		Side Board Ass'y	AG
607	MSPRB0001GEFJ		UP-Spring	AD
608	LX-HZ3089GEFF		S Tight Screw M1.4 x L2	AA
609	PDMP-0016GEZZ		Damper	AE
610	TLABH0556GEZZ		Cassette Control Caution Label	AD
611	TLABH0557GEZZ		Cassette Control Lock Label	AD
614	ZTAPEZ211004M		FPC Shield Tape	AB
617	PGiDM0160GEZZ		Cassette Lid Guide L	AC
618	PGiDM0161GEZZ		Cassette Lid Guide R	AC

CABINET PARTS LIST

Ref. No.	Part No.	★	Description	Code
1-1	DCABA6201TAK4		K.S. Cabinet Ass'y (PD3AS/AH)	BB
1-1	DCABA6201TAK5		K.S. Cabinet Ass'y (PD3AE)	BB
1-1-2	LANGK0444TAFW		L.L. Angle	AE
1-1-3	LANGK0445TA00		Angle for Handstrap.F	AF
1-1-4	LANGK0473TA00		Angle for Handstrap.R	AG
1-1-5	LSTYM0031TAZZ		Stay.F.Ass'y	AQ
1-1-6	LSTYM0032TAZZ		Stay.R.Ass'y	AM
1-1-7	PSHEP0109TAZZ		Zoom FPC Guide	AC
1-1-8	PSPAG0124TA00		Floating Rubber	AC
1-1-9	UBNDT0128TASA		Handstrap	AL
1-1-11	PMLT-0180TAZZ		Sound Insulation Sheet	AA
1-2	GFTAC3006TASA		Cassette Lid	BE
1-3	HiNDP0201TASA		Cassette Lid Plate	AD
1-4	JKNBP0171TASA		Open Pinch	AD
1-5	LANGK0447TAZZ		Cassette Lid Lock Ass'y	AM
1-6	LHLDZ1488TA00		Open Button Holder	AD
1-7	PMLT-0172TAZZ		Cassette Lid Spacer A	AB
1-8	PMLT-0173TAZZ		Cassette Lid Spacer B	AB
1-9	PSHEP0105TAZZ		Zoom FPC Cover	AE
1-10	QSW-Z0309TAZZ		Eject Switch	AG
1-11	QSW-Z0310TAZZ		Zoom Unit	AT
1-13	LHLDZ1505TA00		Lid Lock Holder (since about 5001camcorders)	AD
1-14	LHLDE1004TASA		Belte Stopper	AC
1-15	PMLT-0181TAZZ		Cassette Lid Spacer C	
2-1	DCABB6203TAK2		K.S. Cabinet B Service (PD3AS/AH)	AY
2-1	DCABB6203TAK3		K.S. Cabinet B Service (PD3AE)	AY
2-1-2	JBTN-0305TASA		Menu/Gamma Button	AG
2-1-3	PSHEP0117TAZZ		Tilt Section Blind Sheet	AC
2-1-4	PSPAZ0262TAZZ		Rubber for LCD	AA
2-2	LANGQ0209TAFW		RS232C Fixing Metal	AF
2-3	LHLDZ1489TAZZ		Speaker Holder	AD
2-4	QSW-Z0311TAZZ		Operation Button Unit	AT
2-5	QSW-Z0321TAZZ		Menu/Gamma Switch Unit	AK
2-6	RUNTK0342TAZZ		RS232C Unit	AL
2-7	VSP0020P-A18E		Speaker Unit	AL
2-8	PCOVP9070TAZZ		Wire Cover	AC
3-1	CLNSV0008TA01		V/F Lens Unit	AM
3-2	GCOVA1596TAKA		V/F Cover UP(PD3AS/AH)	AN
3-2	GCOVA1596TAKB		V/F Cover UP(PD3AE)	AN
3-3	GCOVA1597TAKA		V/F Cover Low(PD3AS/AH)	AN
3-3	GCOVA1597TAKB		V/F Cover Low(PD3AE)	AN
3-4	GCOVD1006TAZZ		V/F LCD Protection Cover	AH
3-5	GCOVH1240TAZZ		V/F LCD Back Cover	AD
3-6	GCOVH1242TAZZ		V/F Front Cover Unit	AM
3-7	GCOVH7067TA00		Eye Cap	AF
3-8	JKNBZ0072TASA		Visibility Control Button	AD
3-9	KLMPV0042TAZZ		V/F Back Light	BB
3-10	LANGK0443TAZZ		V/F Tilt Unit	AW
3-11	LANGK0452TAZZ		V/F Slide Angle Unit	AV
3-12	LHLDZ1497TAZZ		V/F LCD Invertor Holder	AD
3-13	MSPRP0192TAFW		Visibility Control Plate Spring	AB
3-14	PSPAG0122TAZZ		V/F LCD Spacer	AD
3-15	PSPAZ0271TAZZ		V/F Angle Sheet	AC
3-16	PSPAZ0272TAZZ		V/F Shade Sheet	AA
3-17	PSPAZ0273TAZZ		V/F FPC Sheet	AB
3-18	RLCDV0046TAZZ		V/F LCD	BP
3-19	PSPAG0123TAZZ		V/F Back Light Spacer	AD
3-20	PSPAZ0266TAZZ		V/F Invertor Holder Sheet	AA
4	CCABE6042TAK4		K.S. LCD Cabinet (PD3AS/AH)	AW
4	CCABE6042TAK5		K.S. LCD Cabinet(PD3AE)	
4-2	HBDGB0053TASA		SHARP Badge	AF
4-3	JBTN-0301TASA		LCD Lock Lever	AD
4-4	LANGK0464TAFW		Plate Nut	AD
4-6	MSPRD0061TAFJ		LCD Lock Spring	AC
4-7	PSHEP0107TAZZ		Shade Sheet	AB

Ref. No.	Part No.	★	Description	Code
4-8	PZETV0403TAZZ		Insulate Tape	AA
5	DCOVA1601TAK3		K.S. Front Cover (PD3AS/AH)	BB
5	DCOVA1601TAK4		K.S. Front Cover(PD3AE)	BA
5-1-2	GCOVA1590TAZZ		R/C Catch Light Cover	AD
5-1-3	PFLT-0026TAZZ		Microphone Spacer	AC
5-1-4	HDECA0701TASA		Microphone Grille (PD3AS/AH)	AP
5-1-4	HDECA0701TASB		Microphone Grille(PD3AE)	AP
5-1-5	HiNDP0207TASA		Terminal Plate	AD
5-1-6	GCOVA1708TAKA		Terminal Cover (PD3AS/AH)	AH
5-1-6	GCOVA1708TAKB		Terminal Cover(PD3AE)	AH
5-1-7	HBDGB0061TASA		SHARP Badge	AG
5-1-8	HiNDP0203TASA		Lens Plate	AD
5-1-9	LHLDZ1493TAZZ		Terminal Cover Belt	AE
5-1-10	GCOVA3068TASA		Lens Hood	AN
5-1-11	PFLT-0027TAZZ		Microphone Grille Felt	AA
5-1-12	QEARP0253TAZZ		Front Cover Earth Sheet	AB
5-2	PMLT-0177TAZZ		Microphone Sound Insulation Sheet	AC
5-3	LHLDZ1491TAZZ		Microphone Holder Front	AD
5-4	LHLDZ1492TAZZ		Microphone Holder Rear	AD
5-5	RMiCC0083TAZZ		Microphone Unit	AR
5-6	PMLT-0176TAZZ		Microphone Molt	AB
5-9	PMLT-0179TAZZ		Microphone Grille Molt	AB
5-10	QEARP0253TAZZ		Front Cover Earth Sheet B	AD
6-1	DCOVA1600TAK1		K.S. Battery Cover Service	AZ
6-1-2	HiNDP0208TASA		Battery Plate	AD
6-1-3	JBTN-0302TASA		S/S Button	AH
6-1-4	JBTN-0303TASA		Still Button	AG
6-1-5	JBTN-0304TASA		Power Lock Button	AD
6-1-6	JKNBP0175TASA		Battery Lock Pinch	AE
6-1-7	JKNBP0174TASA		Power Lock Pinch	AG
6-1-8	LHLDZ1494TAZZ		Power Lock Button Holder	AD
6-1-9	LHLDZ1498TAZZ		Battery Lock Pinch Holder	AD
6-1-10	MLEVP0041TASA		Battery Lock	AD
6-1-11	MSPRC0121TAFJ		Battery Lock Spring	AB
6-1-12	MSPRC0122TAFJ		Power Lock Spring	AB
6-1-13	PSHEP0113TAZZ		Battery Guide Hole Cover U	AC
6-2	LANGK0472TAFW		Cover Fixing Angle	AE
6-3	QSW-Z0312TAZZ		Power Switch Unit	AR
6-4	QTANZ0136TAZZ		Battery Terminal Unit	AR
12	RUNTK0371TAZZ		Joint PWB Unit	AS
13	RUNTK0343TAZZ		Remote Control Recieve Unit	AM
22	GCOVA1603TAKA		LCD Front Cover	AQ
23-1	CLNSA0135TA04		Lens Unit	BS
23-2	JKNBP0172TASA		Jog Pinch	AG
23-3	LANGK0451TAFW		Lens Setting Angle	AE
23-4	LHLDZ1490TAZZ		Jog Switch Holder	AD
24	CCOVH1241TAK3		K.S. Adjust Connection Cover(PD3AS/AH)	AH
24	CCOVH1241TAK4		K.S. Adjust Connection Cover(PD3AE)	AG
24-1	TLABH0386TAZZ		Lithium Converter Label	AC
24-2	PSPAZ0262TAZZ		LCD Under Rubber	AA
25	GCOVH1216TASD		Lens Cap(PD3AS/AH)	AL
25	GCOVH1216TASC		Lens Cap (PD3AE)	AL
26	TLABM2138TAZZ		Model Label(PD3AS)	AE
26	TLABM2139TAZZ		Model Label(PD3AH)	AE
26	TLABM2140TAZZ		Model Label(PD3AE)	AE
26	TLABM2141TAZZ		Model Label(PD3AEW)	AE
26	TLABM2142TAZZ		Model Label(PD3AEX)	AE
27-1	DUNTK2963PM01		MAIN1 PWB Unit(PD3AS)	—
27-1	DUNTK2963PM02		MAIN1 PWB Unit(PD3AH)	—
27-1	DUNTK2963PM03		MAIN1 PWB Unit (PD3AE/AEW)	—
27-1	DUNTK2963PM04		MAIN1 PWB Unit(PD3AEX)	—
27-2	DUNTK2964PM01		MAIN2 PWB Unit(PD3AS)	—
27-2	DUNTK2964PM02		MAIN2 PWB Unit(PD3AH)	—
27-2	DUNTK2964PM03		MAIN2 PWB Unit (PD3AE/AEW)	—
27-2	DUNTK2964PM04		MAIN2 PWB Unit (PD3AEX)	—
27-3	DUNTK2966QA01		POWER2 PWB Unit	—
28	DUNTK2875QA04		LCD PWB Unit	—
29	GCOVA1599TAKA		Top Side Cover (PD3AS/AH)	AP
29	GCOVA1599TAKB		Top Side Cover(PD3AE)	AP
30	GDAi-3056TASA		Button Cover	AQ
⚠ 31	KLMPV0041TAZZ		Lamp	AU
32	LANGF0345TAFW		Tilt Under Angle	AD
33	PGiDM0036TAZZ		Light Guide Plate	AG
34	PMiR-0031TAZZ		Reflection Sheet	AD
35	PSHEP0108TAZZ		Prism Sheet	AF
36	PSHEP0110TAZZ		Radiation Sheet	AD
37	PSHEP0111TAZZ		Wide-Angle Sheet	AD
38	PSHEP0112TAZZ		DBEF Sheet	AL
39	CANGK0442TA01		LCD Tilt Ass'y(PD3AS/AH)	BB
39	CANGK0442TA02		LCD Tilt Ass'y(PD3AE)	BB
39-1	GCOVA1594TAKA		FPC Cover(PD3AS/AH)	AG
39-1	GCOVA1594TAKB		FPC Cover(PD3AE)	AG
39-2	GCOVA1595TAKA		Tilt Cover(PD3AS/AH)	AG
39-2	GCOVA1595TAKB		Tilt Cover(PD3AE)	AG
39-4	PSHEP0120TAZZ		Protection Sheet	AC
39-5	QPWBH2882TAZZ		LCD Tilt FPC	AS
39-6	QSW-Z0308TAZZ		Turn Switch Unit	AG
39-7	PSHEP0122TAZZ		Tilt Shade Sheet	AC
40	CANGK0449TA01		K.S. LCD S/C Front	AG
40-2	PZETV0406TAZZ		LCD Panel Insulate Sheet	AC
41	CANGK0450TA01		K.S. LCD S/C Rear	AL
41-2	PSHEP0106TAZZ		LCD Spacer	AF
41-3	PTPEH0034TAZZ		Double-Faced Tape	AC
42	RLCDV0062TAZZ		LCD Unit	BX
44	DUNTK2965QA01		Camera Head PWB Unit	—
45	PSHEP0118TAZZ		Shade Sheet A	AA
46	PSHEP0119TAZZ		Shade Sheet B	AA
A	LX-HZ0050TAFF		Screw M1.7x4 (Black)	AA
B	LX-HZ0050TAFN		Screw M1.7x4 (Silver)	AA
C	XiPSF17P04000		Screw M1.7x4 (Black)	AA
D	XiPSF17P03000		Screw M1.7x3 (Black)	AA
E	XiPSF17P02000		Screw M1.7x2 (Black)	AA
F	XiPSN17P04000		Screw M1.7x4 (Silver)	AA
G	XiPSN17P03000		Screw M1.7x3 (Silver)	AA
H	XiPSN17P02000		Screw M1.7x2 (Silver)	AA
I	LX-BZ0232TAFD		Floating Screw B	AB
J	LX-BZ0220TAFC		Screw M1.7x2 (Chrome)	AB
K	LX-BZ0221TAFC		Screw M1.7x3 (Chrome)	AB
L	LX-HZ0057TAFC		M1.7x5 (Silver) P Tight	AA
M	LX-BZ0235TAFN		Screw for V/F Cover Stopper	AA
N	LX-HZ0071TAFF		Screw for Visibility Pinch	AB
P	XASSF17P02000		V/F Tilt Screw	AA
Q	LX-HZ0017TAFF		LCD Tilt Fixing Screw M2x8 (Black)	AA
R	XiPSN16P05000		Screw for DV Terminal M1.6x5 (Silver)	AA
S	LX-BZ0225TAFF		Floating Screw (Black)	AB
T	LX-BZ0231TAFE		Floating Screw A (Silver)	AB
U	LX-HZ0013TAFF		Screw M1.7x6 (Black)	AA

CAMERA UNIT PARTS LIST

Ref. No.	Part No.	★	Description	Code
1	PFiLW0076TAZZ		Crystal Filter	AP
2	PCOVM8027TA00		Dust Protection Rubber	AC
3	VHiLZ2383SM-1		CCD Sensor	BN
4	LANGK0437TAFW		CCD Cover Panel	AC
5	PSLDM3333TAMS		Shield Case A	AE
6	DUNTK2965QA01		Camera Head PWB Unit	—
7	LX-HZ0073TAFD		Screw	AA
8	XiPSN17P02000		Screw (1.7 x 2)	AA
9	LX-HZ0050TAFF		Screw	AA
10	LHLDZ1490TAZZ		Jog Switch Holder	AD
11	JKNBP0172TASA		Jog Pinch	AG
12	PSLDM3334TAFW		Shield Case	AD

LENS UNIT PARTS

Ref. No.	Part No.	★	Description	Code
1	CLNSA0135TA04		Lens Unit	BS
2	90AVEM0641		Zoom Motor U	AU
3	90AXQN16+Cj5		Zoom Motor U Installation Screw	AA

SUPPLIED ACCESSORIES

ACCESSORIES

Ref. No.	Part No.	★	Description	Code
⚠	QACCB0016TAZZ		AC Cable(PD3AH)	AV
⚠	QACCK0006TAZZ		AC Cable(PD3AS/AE)	AL
⚠	QACCL0026TAZZ		AC Cable(PD3AEX)	AN
	QCNW-1927TAZZ		AV/S Cable(PD3AE)	AT
	QCNW-1976TAZZ		AV/S Cable (with Ferrite Core(PD3AS/AH/AEX))	AY
	QCNW-1957TAZZ		DC Cable	AT
	RRMCG0080TASA		Remote Control	AR
	TiNSE0154TAZZ		Service Guide(PD3AH)	AA
	TiNSE0380TAZZ		Quick Operation Guide (PD3AH)	AM
	TiNSE0381TAZZ		Operation Manual(PD3AH)	AG
	TiNSL0255TAZZ		Operation Manual (PD3AE/AEX)	AV
	TiNSL0256TAZZ		Operation Manual (PD3AEW)	AV
	TiNSL0253TAZZ		Operation Manual1(PD3AS)	AW
	TiNSL0254TAZZ		Operation Manual2(PD3AS)	AW
	RTPEV0026TAZZ		DV Tape	AY
⚠	UADP-0321TAZZ		AC Adapter	BG
	UBNDS0024TAZZ		Shoulder Strap	AH
	UBATL0011TAZZ		Lithium Battery(x2)	AE
	UBATi0053TAZZ		Battery	BG
	QPLGA0010GEZZ		AC Plug Converter(PD3AE)	AF

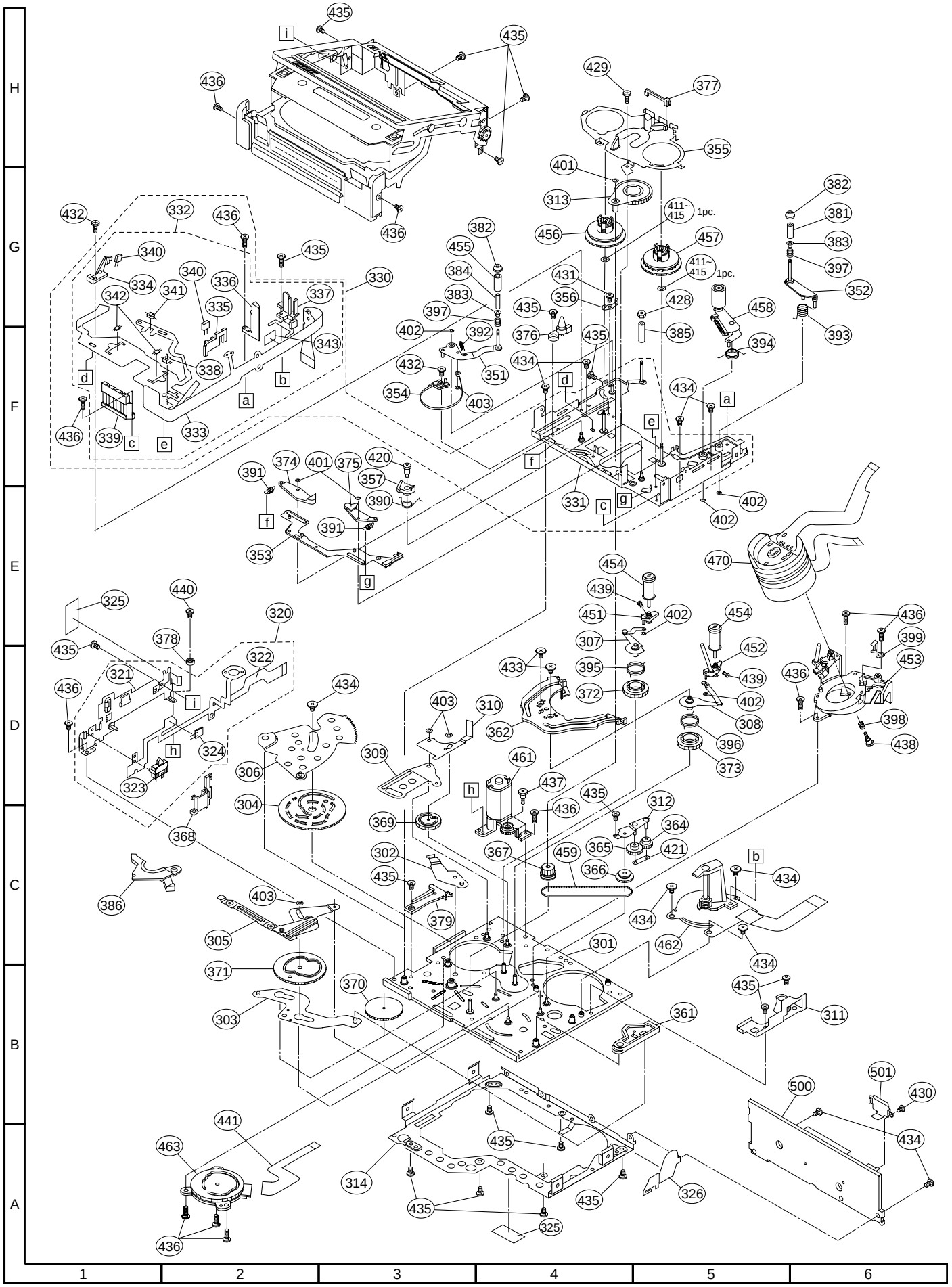
ACCESSORIES
(NOT REPLACEMENT ITEM)

Part No.	Description	Code
TGANE0050TAZZ	Guarantee Card(PD3AEX)	AE
TGANE0057TAZZ	Guarantee Card(PD3AH)	AG
TGANL0004TAZZ	Guarantee Card (PD3AS/AH)	AC
TLABK0001TAZZ	No. Card	—

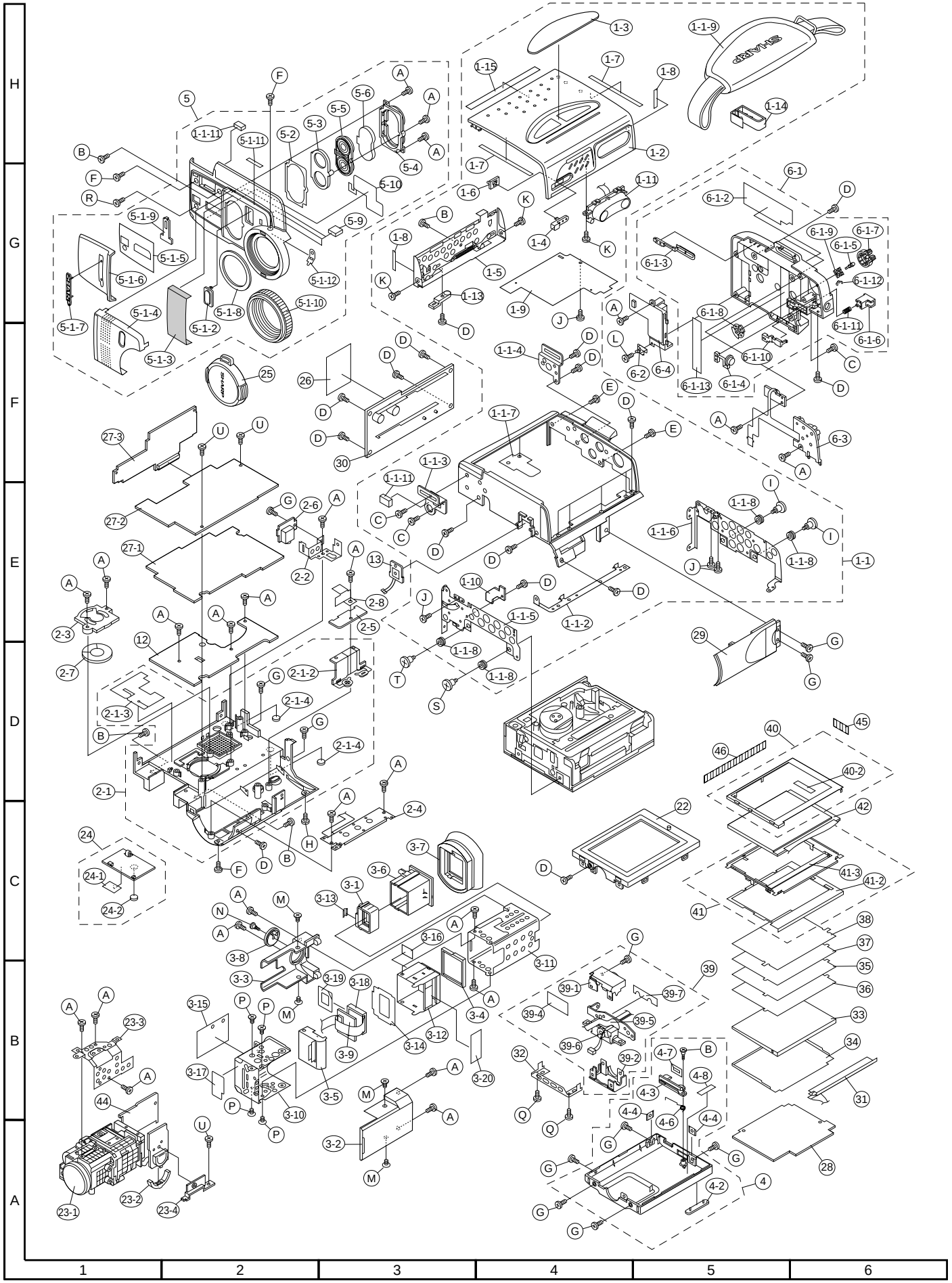
PACKING PARTS
(NOT REPLACEMENT ITEM)

Part No.	Description	Code
SPAKC7570TAZZ	Packing Case(PD3AS)	—
SPAKC7571TAZZ	Packing Case(PD3AH)	—
SPAKC7572TAZZ	Packing Case(PD3AE/AEX)	—
SPAKC7573TAZZ	Packing Case(PD3AEW)	—
SPAKA6306TAZZ	Packing Top ADD.	—
SPAKA6307TAZZ	Packing Bottom ADD.	—
SPAKA6308TAZZ	Packing	—
SPAKF0262TAZZ	Packing Upper	—
SPAKP6121TAZZ	Wrapping Paper	—
SPAKF0270TAZZ	Adapter Pat	—
SSAKA0087TAZZ	Polyethylene Bag (PD3AH/AE/AEW/AEX)	—
SSAKA0088TAZZ	Polyethylene Bag(PD3AS)	—
SPAKP6108TAZZ	Side Pad	—

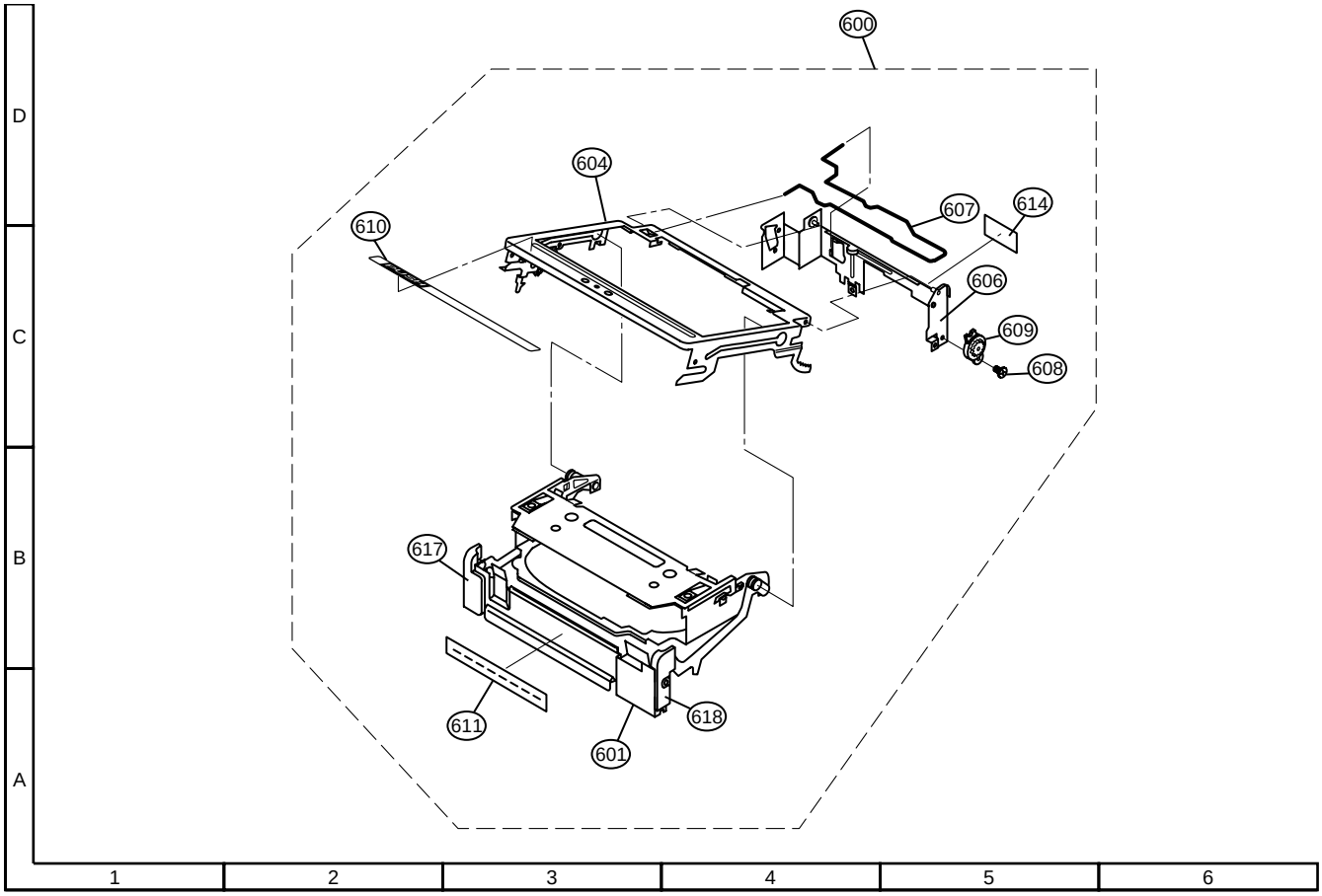
MECHANISM CHASSIS EXPLODED VIEW



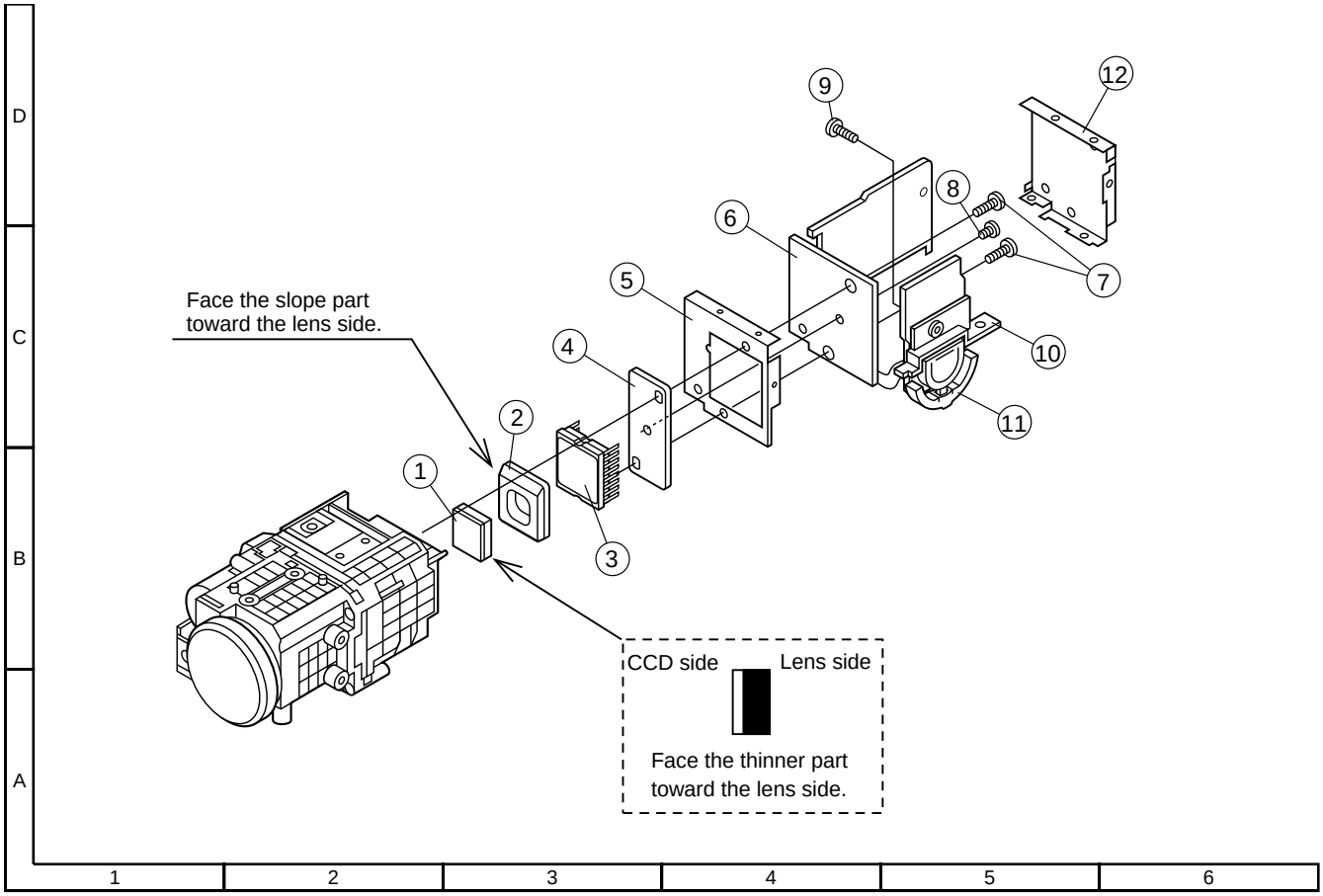
CABINET EXPLODED VIEW



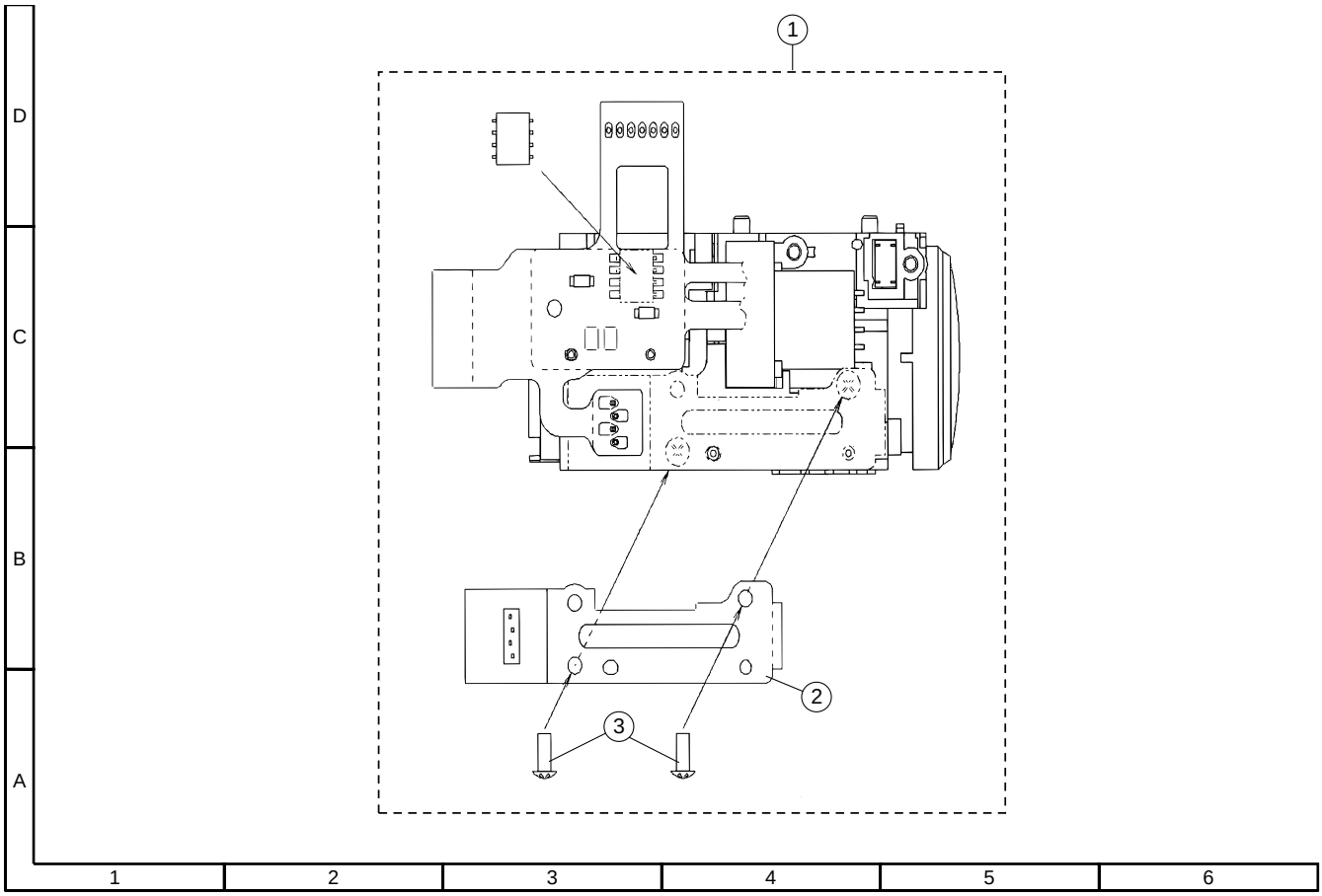
CASSETTE CONTROL EXPLOOD VIEW



CAMERA UNIT EXPLOOD VIEW



LENS UNIT EXPLOOD VIEW



VL-PD3AS/AH/AE SERVICE JIG SPECIFICATIONS

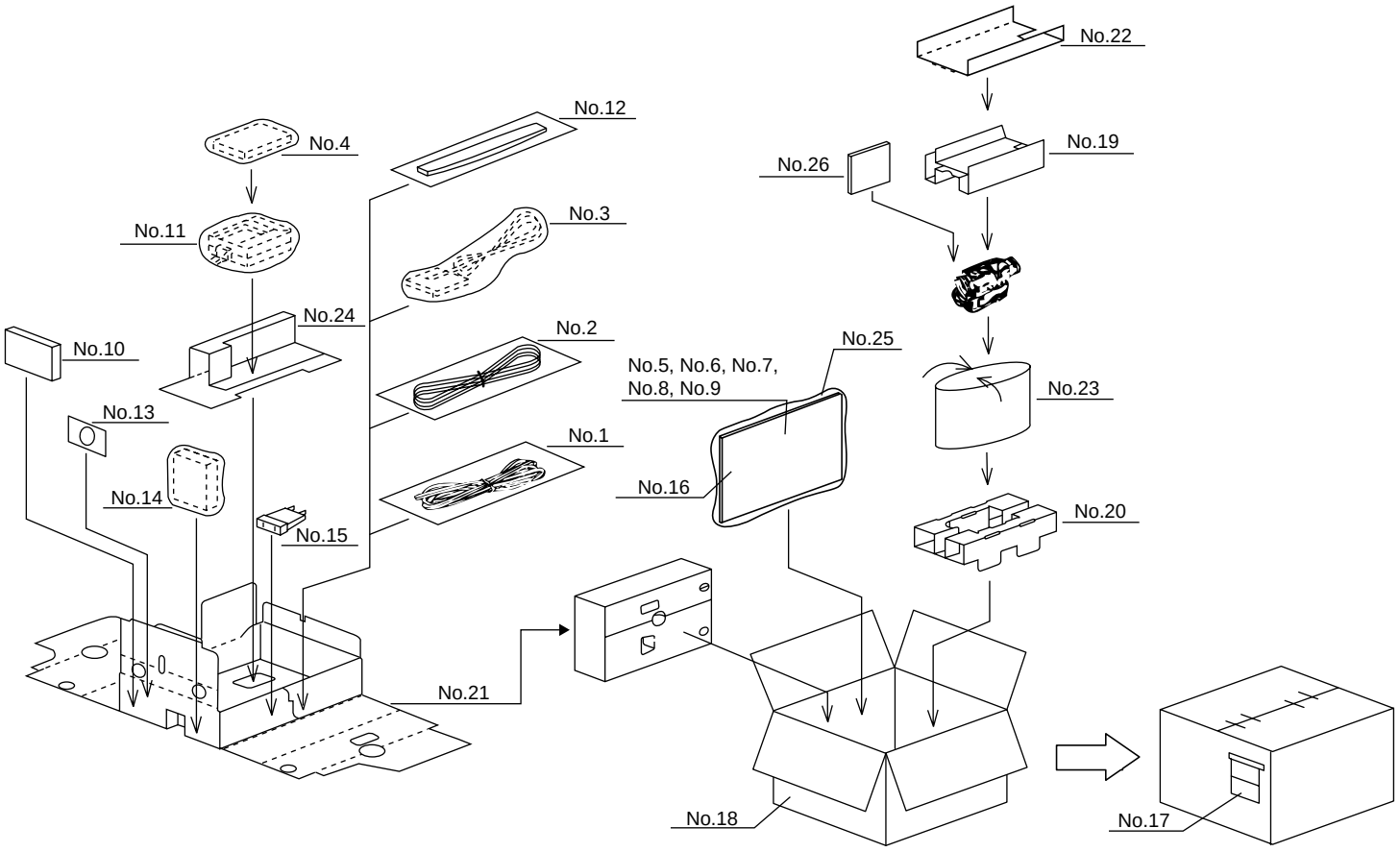
1-1. Adjusting jigs for checking the mechanism

No.	Name	New part	Type number, Application	Part code	Code
1	PB-use cassette torque meter		1mN·m/15mN·m	9DASD-1015	DB
2	Torque gauge		For use in VS-REW take up torque adjustment	JiGTG0045	CN
3	Torque gauge head		For use with the above torque gauge	9EQTGH-DH5000	BW
4	Tension gauge 4N		For measuring of pinch roller pressure	JiGSG0400	BK
5	Dial tension gauge		PTG-10	9DAPTG-10-10W	CA
6	Torque screwdriver 150mN·m		No. 0 cross bit	JiGTD1500RTDH	CB5
7	Master plane		For checking the reel base height	9EQMP-VLPD1	CL
8	Height adjustment jig		For height adjusting	9DAHG-PD1	BZ
9	Height adjustment screwdriver		For guide roller adjustment. For Tu guide adjustment. For T roller adjustment. Bit shape.	9EQDRiVER-DH5	BC
10	Alignment tape - I		For tape running adjustment	VR3-GAZXS	CF
11	Alignment tape - II		For Switching Point adjustment	VR3-JPZQS	CG
12	For hexagon nut opposite side 3mm bit		For S guide hexagon nut installation.	95CM22001	BL
13	Reel hub for back tension measurement		Refer to Service Manual.	Prepared in the service station.	–
14	String for measuring the pinch roller pressure		Refer to Service Manual.	Prepared in the service station.	–

1-2. Parts for periodical inspection and maintenance

No.	Name	New part	Type number, Application	Part code	Code
1	OiL		Cosumo Hydro HV22	9EQ-OiL-HV22	AE
2	Cleaning paper		Dusper ∑ (SIGMA) ozu Co., LTD	JiGDUSPER	AP
3	Grease: Moly Coat YM-103		Dow coaning	99FGREASE-YM103	AH

17. PACKING OF THE SET



ACCESSORIES

No.	Model	Parts Code	Description	Remarks
1	PD3AH	QACCB0016TAZZ	AC Cable	⚠
	PD3AS/AE	QACCK0006TAZZ	AC Cable	⚠
	PD3AEX	QACCL0026TAZZ	AC Cable	⚠
2	PD3AE	QCNW-1927TAZZ	AV/S Cable	
	PD3AS/AH/AEX	QCNW-1976TAZZ	AV/S Cable(with Ferrite Core)	
3	– Common parts –	QCNW-1957TAZZ	DC Cable	
4	– Common parts –	RRMCG0080TASA	Remote Control	
5	PD3AH	TiNSE0154TAZZ	Service Guide	
6	PD3AH	TiNSE0380TAZZ	Quick Operation Guide	
7	PD3AH	TiNSE0381TAZZ	Operation Manual	
	PD3AE/AEX	TiNSL0255TAZZ	Operation Manual	
	PD3AEW	TiNSL0256TAZZ	Operation Manual	
8	PD3AS	TiNSL0253TAZZ	Operation Manual 1	
9	PD3AS	TiNSL0254TAZZ	Operation Manual 2	
10	– Common parts –	RTPEV0026TAZZ	DV Tape	
11	– Common parts –	UADP-0321TAZZ	AC Adapter	⚠
12	– Common parts –	UBNDS0024TAZZ	Shoulder Strap	
13	– Common parts –	UBATL0011TAZZ	Lithium Battery(x2)	
14	– Common parts –	UBATi0053TAZZ	Battery	
15	PD3AE	QPLGA0010GEZZ	AC Plug Converter	

ACCESSORIES *(NOT REPLACEMENT ITEM)*

No.	Model	Parts Code	Description	Remarks
16	PD3AEX	TGANE0050TAZZ	Guarantee Card	★
	PD3AH	TGANE0057TAZZ	Guarantee Card	★
	PD3AS/AH	TGANL0004TAZZ	Guarantee Card	★
17	– Common parts –	TLABK0001TAZZ	No. Card	★

PACKING PARTS *(NOT REPLACEMENT ITEM)*

No.	Model	Parts Code	Description	Remarks
18	PD3AS	SPAKC7570TAZZ	Packing Case	★
	PD3AH	SPAKC7571TAZZ	Packing Case	★
	PD3AE/AEX	SPAKC7572TAZZ	Packing Case	★
	PD3AEW	SPAKC7573TAZZ	Packing Case	★
19	– Common parts –	SPAKA6306TAZZ	Packing Top ADD.	★
20	– Common parts –	SPAKA6307TAZZ	Packing Bottom ADD.	★
21	– Common parts –	SPAKA6308TAZZ	Packing	★
22	– Common parts –	SPAKF0262TAZZ	Packing Upper	★
23	– Common parts –	SPAKP6121TAZZ	Wrapping Paper	★
24	– Common parts –	SPAKF0270TAZZ	Adapter Pat	★
25	PD3AH/AE/AEW/AEX	SSAKA0087TAZZ	Polyethylene Bag	★
	PD3AS	SSAKA0088TAZZ	Polyethylene Bag	★
26	– Common parts –	SPAKP6108TAZZ	Side Pad	★

MARK ★ Not Replacement Item

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